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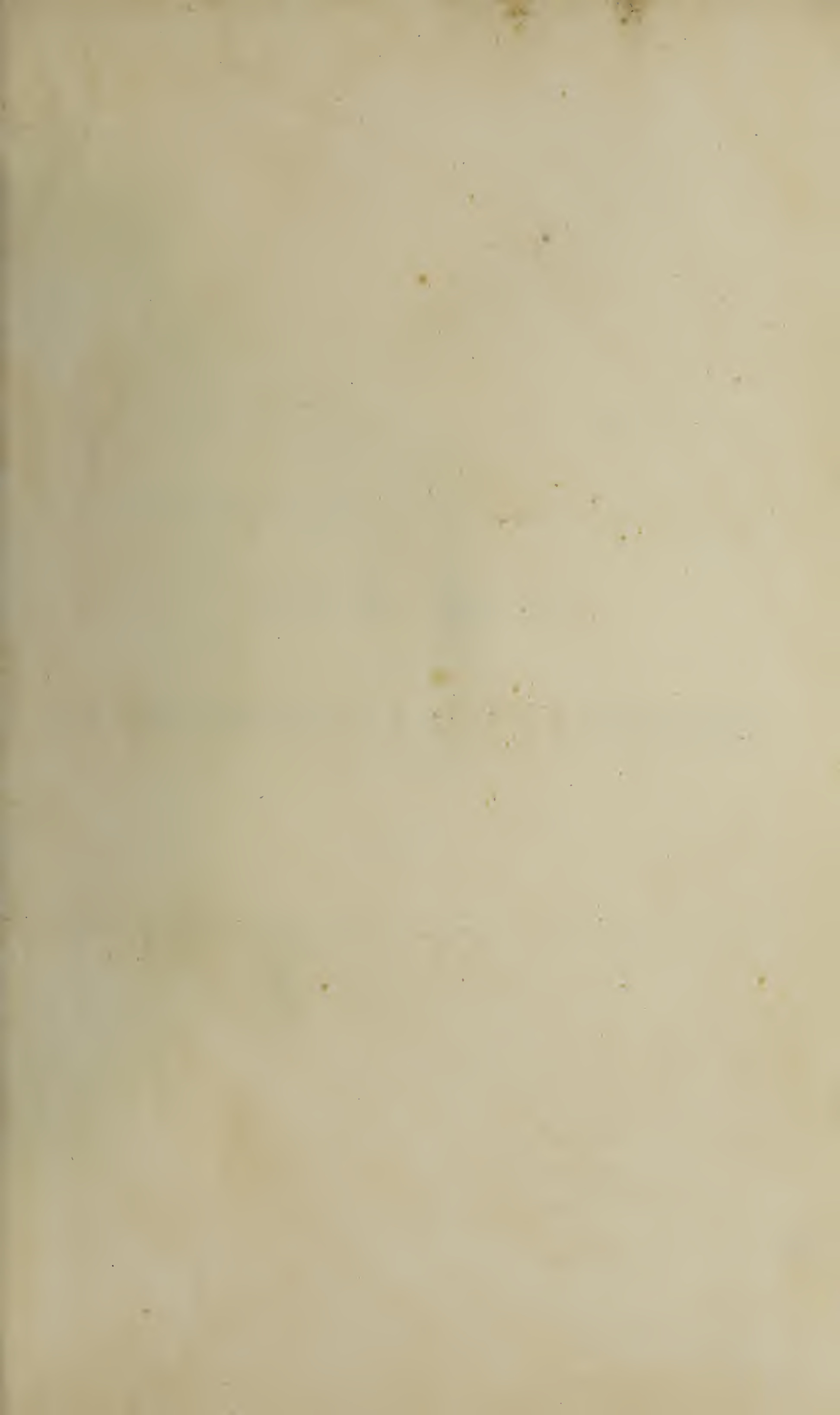
SUPERINTENDENT GOVERNMENT PRINTING, INDIA.

1910

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22501408303



ANNUAL REPORT
OF THE
SANITARY COMMISSIONER WITH THE GOVERNMENT
OF INDIA

1908.

*Agents for the Sale of Books published by the Superintendent of Government
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ANNUAL REPORT
OF THE
SANITARY COMMISSIONER WITH THE
GOVERNMENT OF INDIA

FOR

1908,

WITH

APPENDICES AND RETURNS OF SICKNESS AND MORTALITY AMONG
EUROPEAN TROOPS, NATIVE TROOPS, AND PRISONERS
IN INDIA, FOR THE YEAR



CALCUTTA
SUPERINTENDENT GOVERNMENT PRINTING, INDIA

1909

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1908

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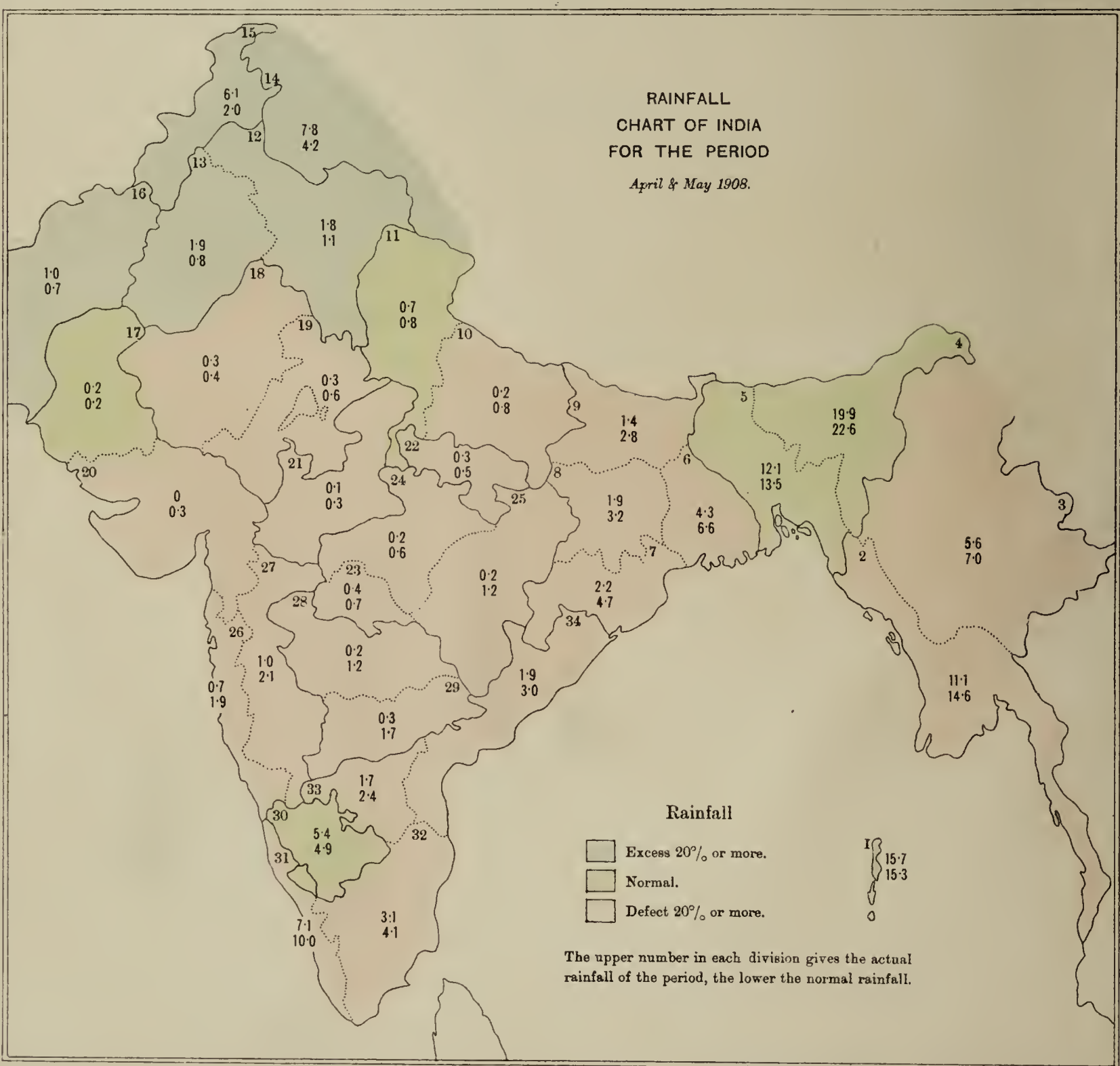
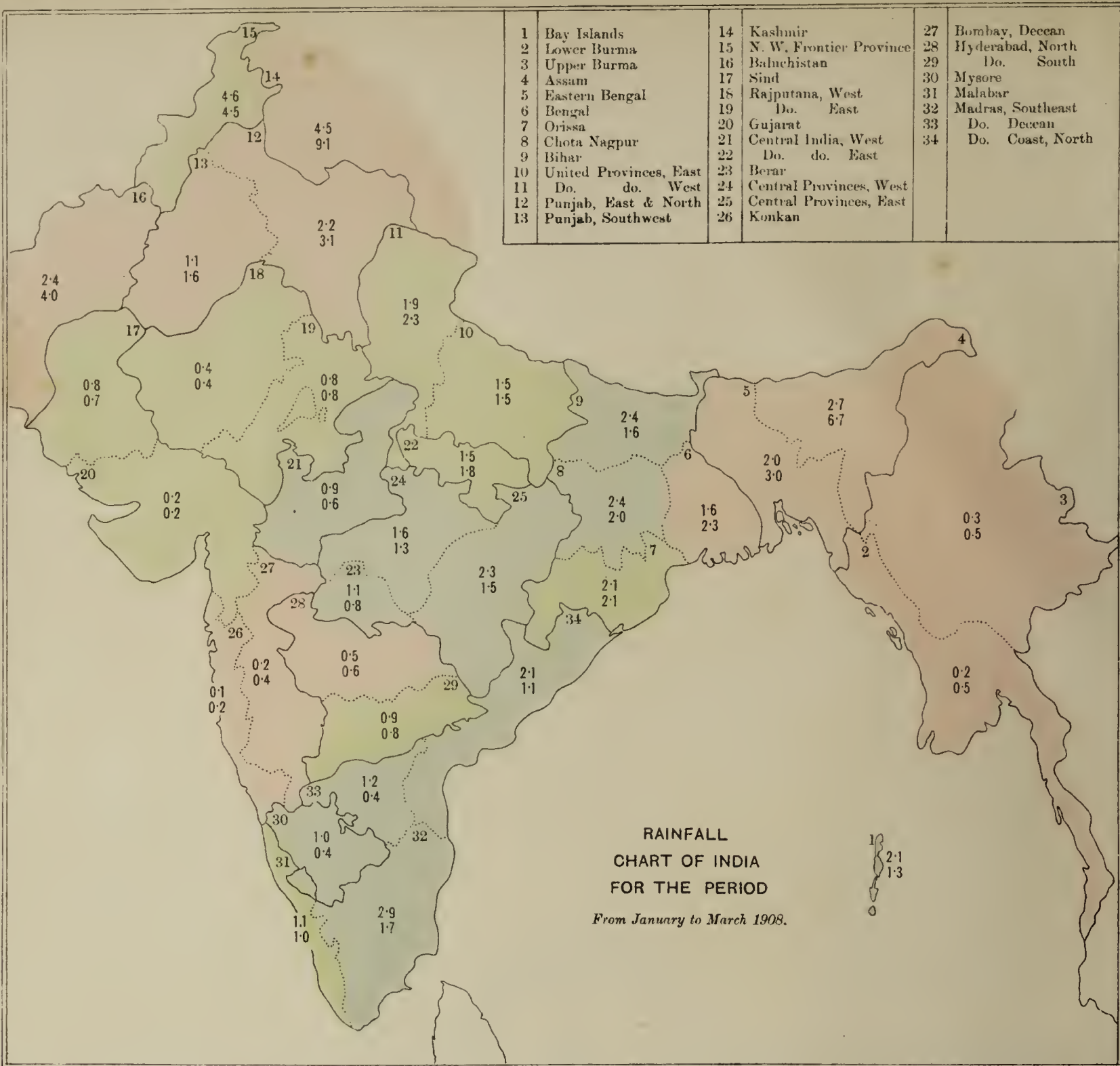
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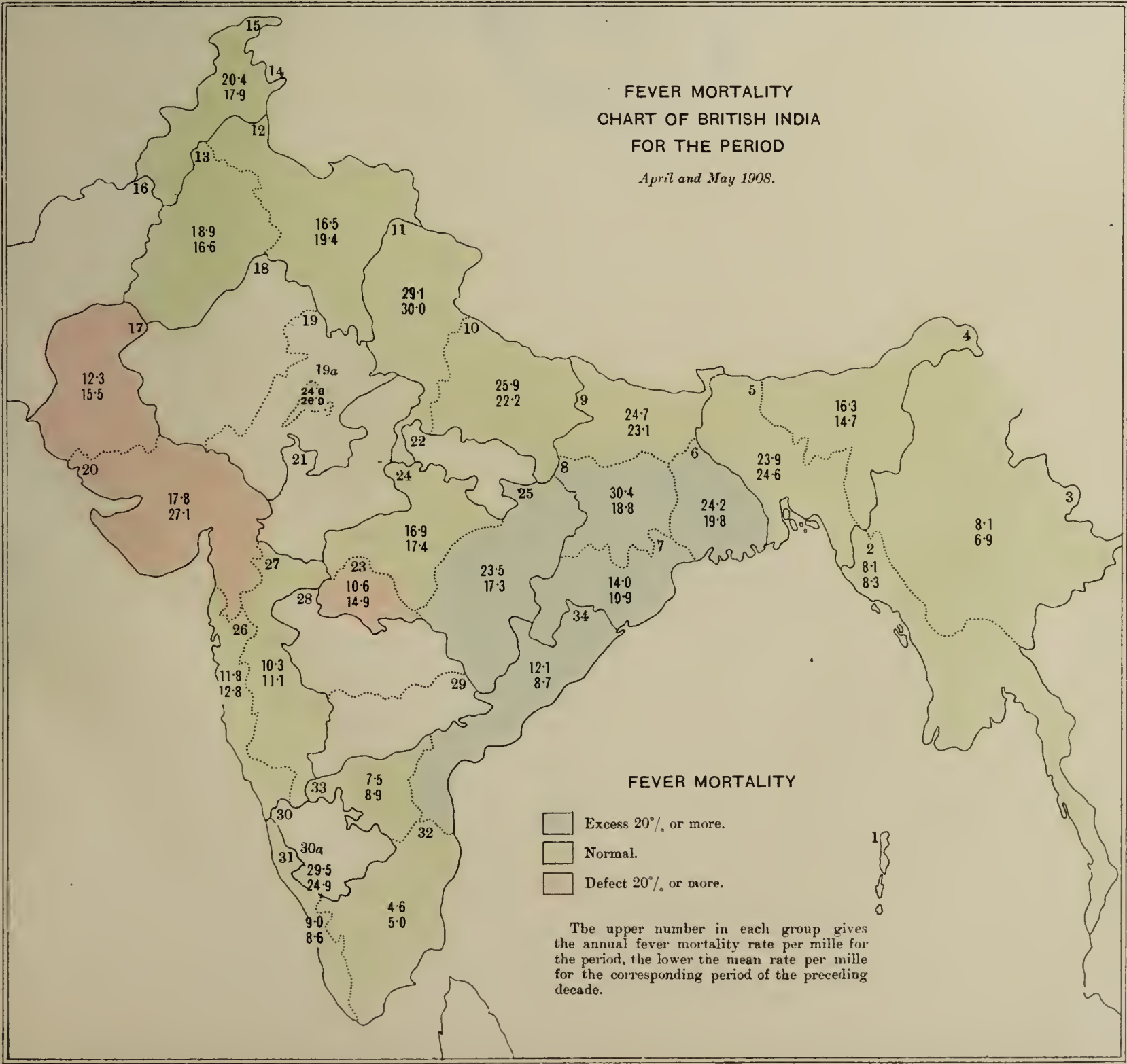
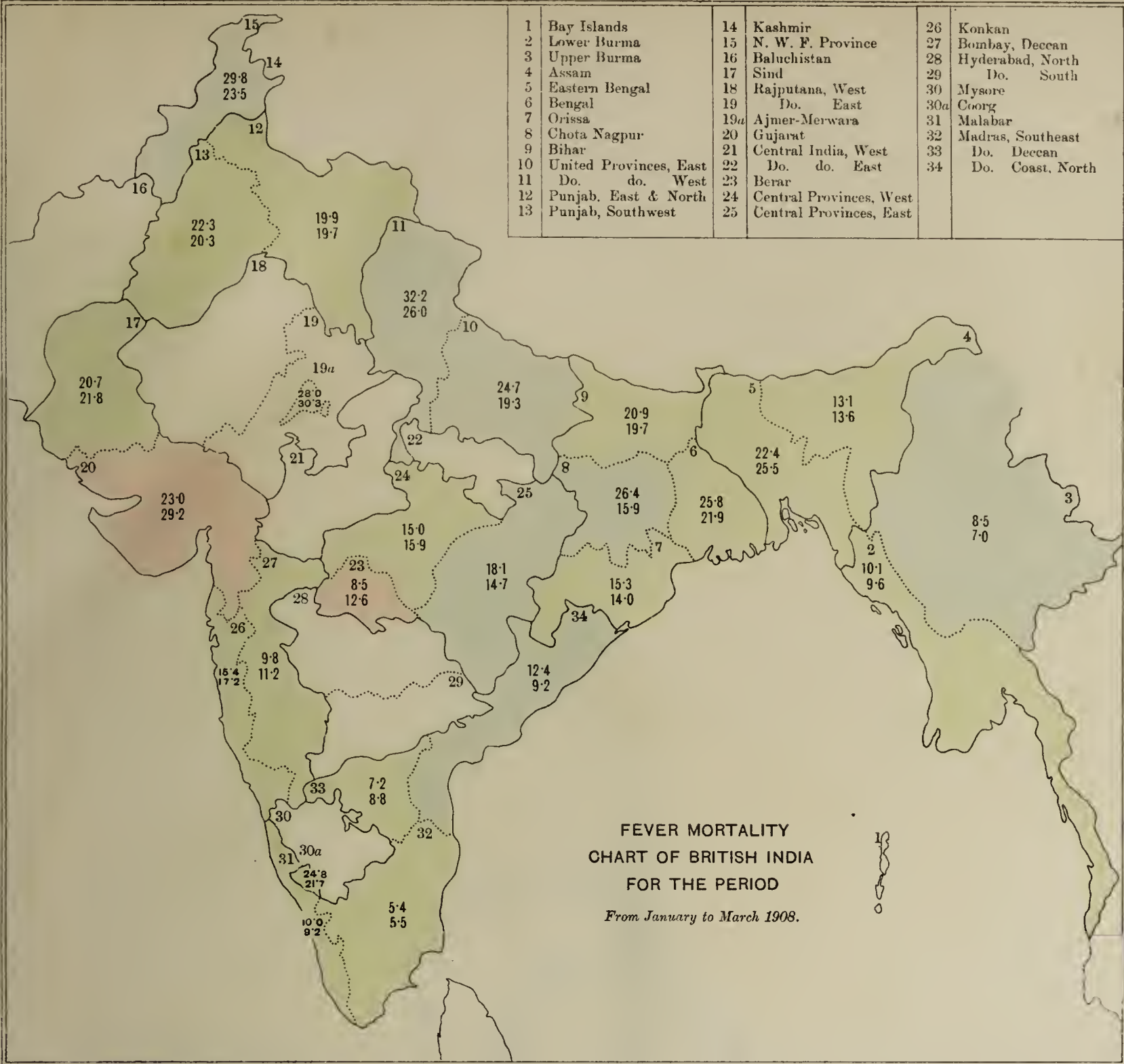
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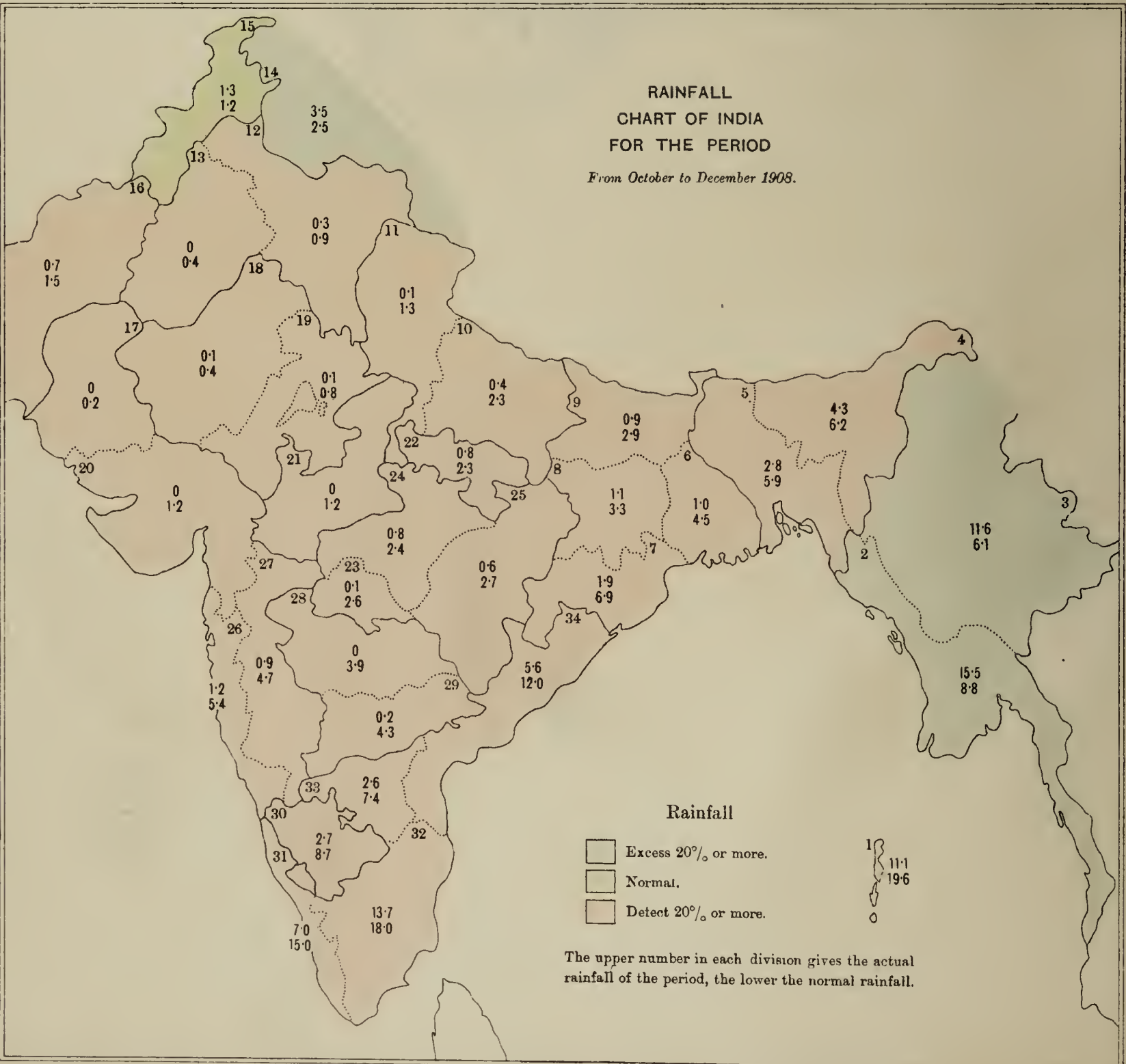
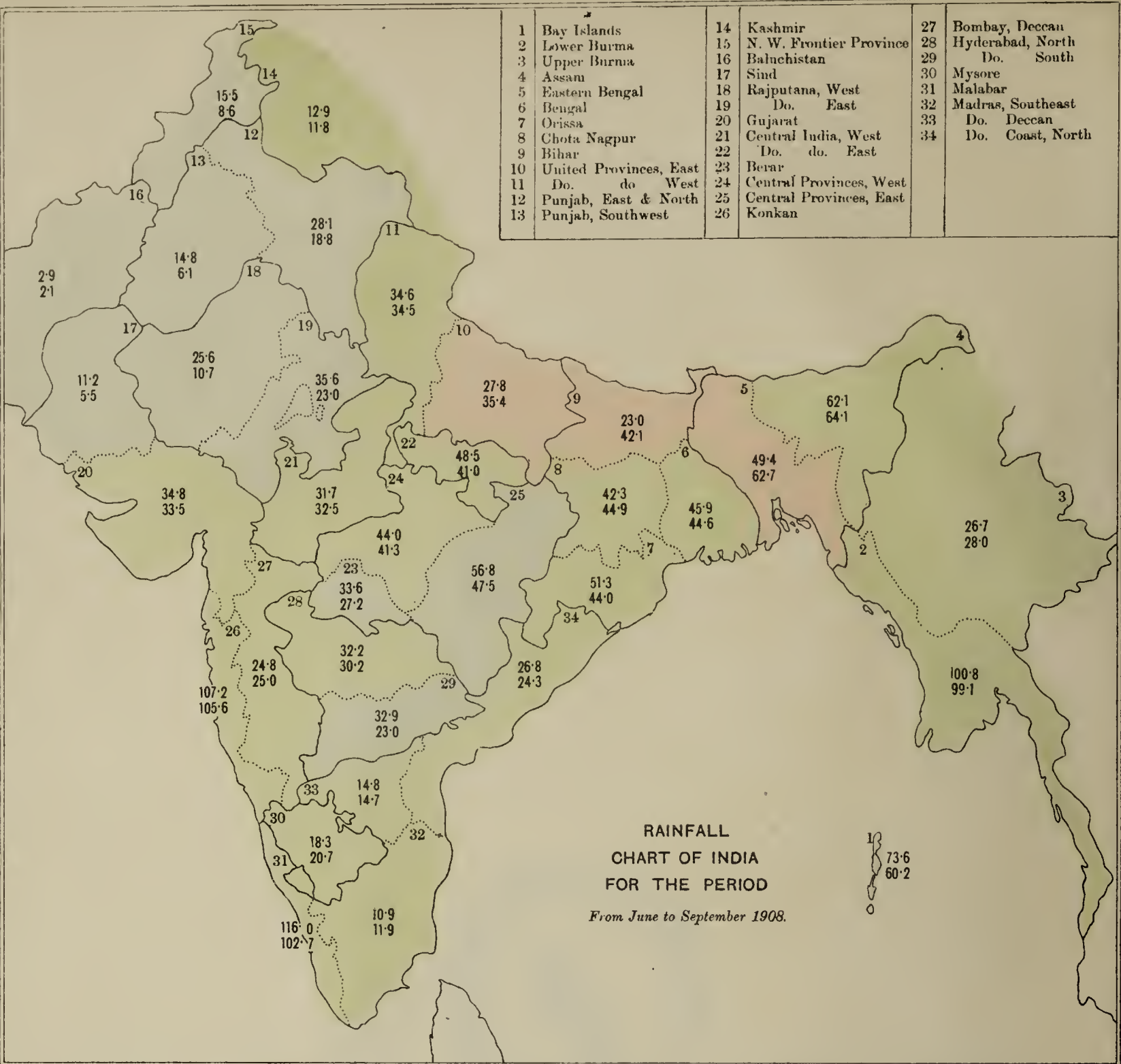


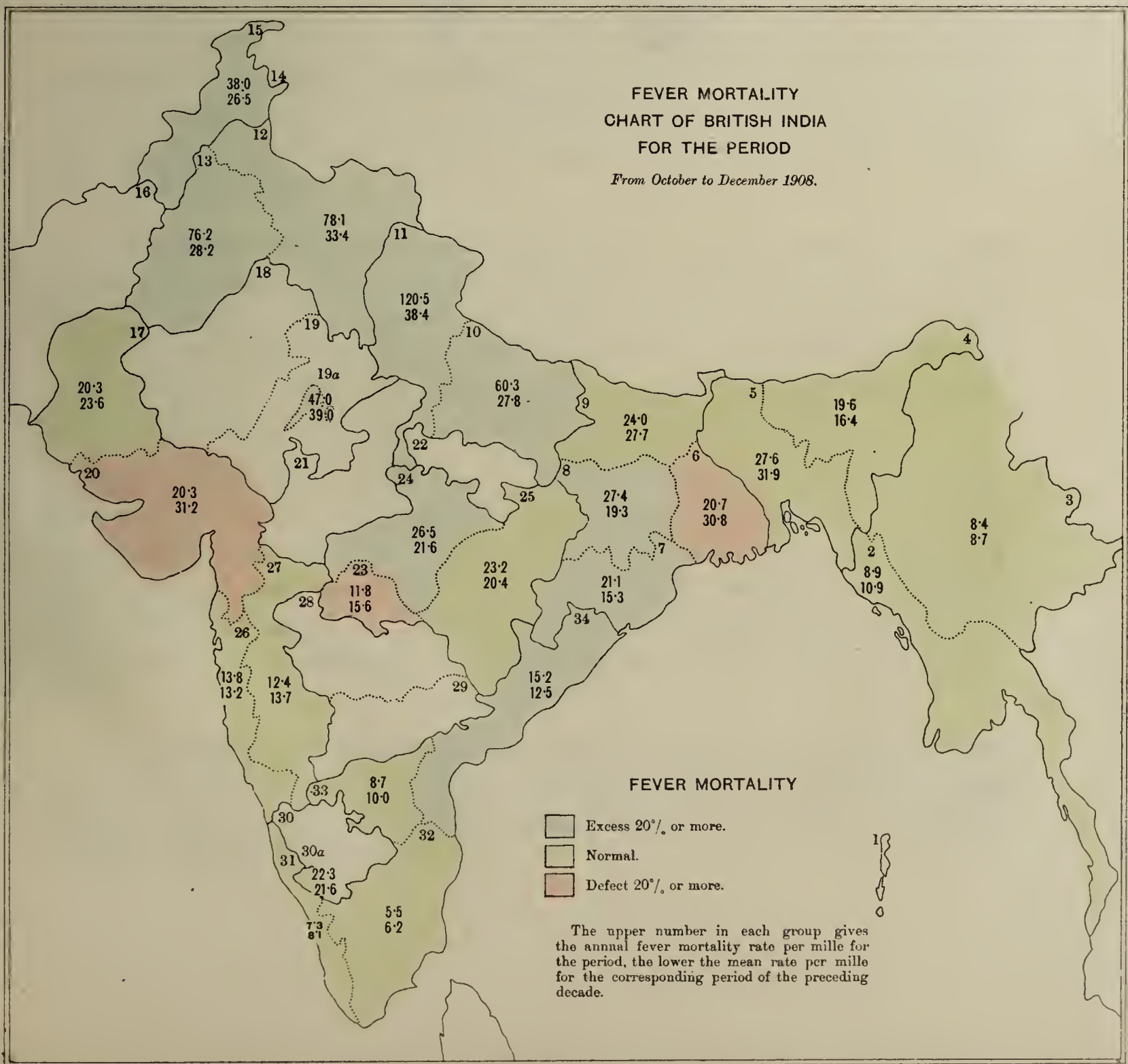
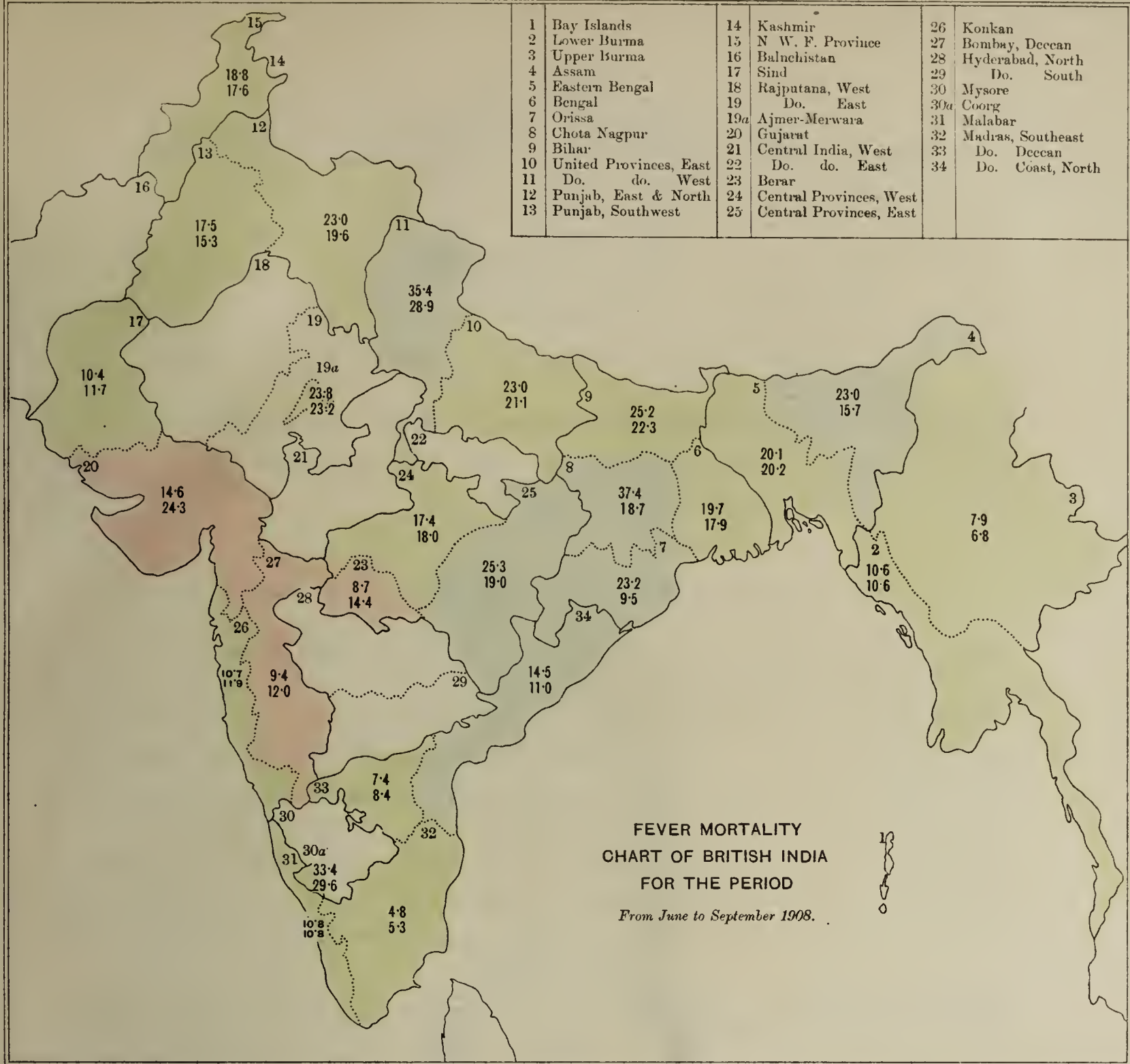


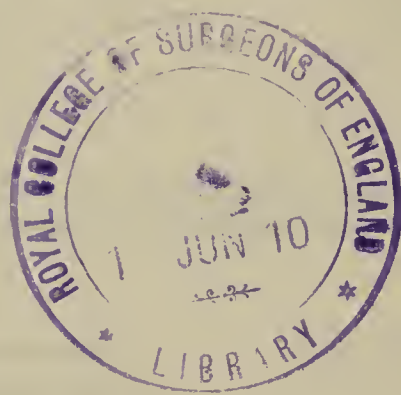












ANNUAL SANITARY REPORT FOR 1908.

SECTION I.

METEOROLOGY OF THE YEAR.

1. The following memorandum on the rainfall and other weather conditions of India in 1908 has been furnished by the Meteorological Department of the Government of India :—

Summary of the meteorological phenomena of the year.

CHIEF FEATURES OF THE RAINFALL OF 1908.

I.—The precipitation of the cold weather period was in slight excess when averaged over the whole country, but was somewhat unusual in its distribution. It was materially in defect in Lower Burma, Assam, Kashmir, Baluchistan, Berar, the Konkan, the Bombay Deccan and Hyderabad North; and considerably above the average in the Bay Islands, Orissa, Chota Nagpur, Bihar, the North-West Frontier Province, Sind, Central Provinces East, Hyderabad South, Mysore, and Madras. The excess was largest in actual amount in the North-West Frontier Province, and by percentage comparison with the average in Mysore, where ordinarily but little rain is received.

II.—The rainfall of the hot weather season was below the normal over nearly the whole of the Indian region: the only important exceptions were upper India, Baluchistan, Berar and Mysore.

III.—The commencement of the monsoon rains occurred a few days after the normal date in Bengal and about a week later than usual on the west coast. The currents were very slow in penetrating inland, and as a result the rains in north-west India and Central India were not fully established until nearly the end of the first week of July.

The Arabian Sea current, as measured by its rain-giving capacity, was more vigorous than usual from the second week of July to the 4th September, but was directed to a much greater extent than usual towards north-west India, where accordingly the rainfall was heavy. The Bay monsoon, on the other hand, always showed less than its normal strength and steadiness, particularly in Bihar and the United Provinces East, where the rainfall was light and intermittent.

The total monsoon rainfall was in decided defect over Eastern Bengal, Bihar and the United Provinces East, and very nearly normal or above it over the remainder of the country. The excess was more than 50 per cent. over the greater part of north-west India and was absolutely greatest over Rajputana which obtained an aggregate of 33 inches instead of about 20 inches—the normal for the period. The rainfall over north-west India was in fact the heaviest on record.

IV.—The period October to December was unusually dry throughout the country with the exception of Burma, Kashmir and the North-West Frontier Province. The defect was large and serious in Bengal, the Central Provinces, Bombay, Hyderabad and Mysore.

V.—The excess of precipitation recorded during the cold weather and south-west monsoon seasons almost counterbalanced the defect in the other two periods and accordingly the year's rainfall over the whole country was 1 per cent below the normal.

TOTAL RAINFALL OF THE YEAR 1908.

Sub-division.	RAINFALL WHOLE YEAR.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
1. Bay Islands ...	102'46	96'37	+6'09	+6
2. Lower Burma ...	127'55	122'86	+4'69	+4
3. Upper Burma ...	44'08	41'51	+2'57	+6
4. Assam ...	89'01	99'55	—10'54	—11
5. Eastern Bengal ...	66'31	85'21	—18'90	—22
6. Bengal ...	52'74	58'08	—5'34	—9
7. Orissa ...	57'44	57'73	—0'29	—1
8. Chota Nagpur ...	47'79	53'40	—5'61	—11
9. Bihar ...	27'77	49'38	—21'61	—44
10. United Provinces, East ...	29'86	40'10	—10'24	—26
11. Do. do. West...	37'38	38'85	—1'47	—4
12. Punjab, East and North...	32'41	23'97	+8'44	+35
13. Punjab, South-west ...	17'88	8'89	+8'99	+101
14. Kashmir ...	28'81	27'62	+1'19	+4
15. North-West Frontier Province ...	27'61	16'36	+11'25	+69
16. Baluchistan ...	6'90	8'25	—1'35	—16
17. Sind ...	12'18	6'63	+5'55	+84
18. Rajputana, West ...	26'32	11'81	+14'51	+123
19. Do. East ...	36'75	25'16	+11'59	+46
20. Gujrat ...	35'00	35'06	—0'06	0
21. Central India, West ...	32'64	34'62	—1'98	—6
22. Do. East ...	51'08	45'65	+5'43	+12
23. Berar ...	35'07	31'24	+3'83	+12
24. Central Provinces, West ...	46'59	45'65	+0'94	+2
25. Do. East ...	59'93	52'88	+7'05	+13
26. Konkan ...	109'13	113'14	—4'01	—4
27. Bombay Deccan ...	26'78	32'17	—5'39	—17

TOTAL RAINFALL OF THE YEAR 1908.

Sub-division.	RAINFALL WHOLE YEAR.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
28. Hyderabad, North	32·87	35·81	—2·94	—8
29. Do. South	34·15	29·72	+4·43	+15
30. Mysore	27·48	34·61	—7·13	—21
31. Malabar	131·24	128·68	+2·56	+2
32. Madras, South-east	30·64	35·66	—5·02	—14
33. Do. Deccan	20·33	24·79	—4·46	—18
34. Do. Coast, North	36·35	40·45	—4·10	—10

THE COLD WEATHER PERIOD, JANUARY AND FEBRUARY.

I.—*General Summary.*—January 1908, unlike the corresponding months, of several previous years, was associated with more rain than usual over a very large part of the country. The precipitation was remarkably heavy for the time of year in Orissa, south Hyderabad, Mysore and the north coast of Madras, which received as much as five to eight times the small normal fall of the month. In February, on the other hand, weather was unusually dry in north-west India and Central India, and very wet in Bengal, the Central Provinces, Mysore and Madras. The distribution of the precipitation of the season was thus very unusual. The aggregate of the period was within 15 per cent. of the normal in Eastern Bengal and Assam, the United Provinces, the Punjab, Rajputana, Central India and the Central Provinces, over 40 per cent. in excess in Bengal, the North-West Frontier Province, Sind, Hyderabad, Mysore and Madras, and decidedly below the small average quantity in Burma and Bombay.

Weather was even less disturbed in Baluchistan and Kashmir than in the Punjab, and the accumulations of snow on the mountain ranges of these regions at the end of the season were in general below their average depth.

The air was unusually dry in the Punjab, Central India, the Central Provinces and Hyderabad, the percentage of saturation being between 6 and 11 below normal in these areas. The quantity of cloud was very high over north-east India and a large part of the peninsula, and decidedly low in the Punjab and Rajputana.

As is ordinarily the case in a mild winter season the depatures of temperature from the normal were nowhere large, except locally in Kashmir and Baluchistan where weather was 3° warmer than usual.

Two cold waves of moderate severity affected northern and central India; the effects of the first lasted from the 9th to the 24th of January, and those of the second from the 1st to the 9th of February. A spell of abnormally warm weather was on the other hand experienced in northwest India from the 10th to the

20th of February : during this period day temperature at times became over 20° in excess in Baluchistan and 18° in Sind.

Burma.—The whole division received less rain than usual, but the deficiency was not large, for the normal fall does not exceed a quarter of an inch in amount. The departures from normal of temperature, humidity and cloud were generally of little significance.

Northeast India, including Orissa.—The precipitation of the period was 26 per cent. in defect over Assam, and more or less above the average over the rest of the division. The excess was as much as 75 per cent. in Bihar and Chota Nagpur, where it was most marked. Temperature and humidity departed but little from the normal. The amount of cloud was decidedly high, particularly in Eastern Bengal and Assam in spite of the defect of rainfall there.

The United Provinces, Central India and the Central Provinces.—Except in the Central Provinces East where it was in marked excess (+160 per cent.), and in Berar (which received 79 per cent. less than its normal quantity) the total fall of the period was very nearly normal over the division. The air was generally very dry, more especially in the Central Provinces where at some stations the percentage of saturation was from 10 to 17 below normal. Skies were clouded to about the usual extent in most places. Temperature did not differ materially from the average.

Northwest India.—The precipitation was much heavier than usual in Rajputana West, Sind, and the North-West Frontier Province, practically normal in the Punjab, Rajputana East and Gujarat, and in large defect in Kashmir and Baluchistan. The proportion of cloud was very low in the Punjab and Rajputana, while humidity was nearly normal except in the Punjab, where the percentage was 6 in defect, and in Sind where it was 5 in excess. Temperature was higher than usual in Baluchistan and Kashmir, the areas of scanty precipitation, but elsewhere the departures from the average were small in amount.

The Peninsula.—Weather was remarkably wet almost everywhere, the only part where the seasonal rainfall was short of the small normal quantity being the Konkan, the Bombay Deccan and Hyderabad North. The excess was greatest in actual amount in Madras Coast North, and by percentage comparison with the normal in Mysore. The air contained the average amount of moisture except in Hyderabad where it was unusually dry. The quantity of cloud was either equal to or above the normal in most parts of the division. Temperature agreed closely with the normal almost everywhere.*

* Further details will be found in the two following tables, where, as in all the other tables contained in this memorandum, stations at an altitude above sea level greater than 3,200 feet are neglected; exception is made in the divisions of Kashmir and Baluchistan, where stations of all altitudes are included.

Division.	RAINFALL, JANUARY AND FEBRUARY.				DEPARTURE FROM NORMAL OF		
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.	Mean temperature.	Relative humidity 8 hrs.	Cloud 8 hrs.
	"	"	"		o		
Burma ...	0'14	0'26	—0'12	—46	+0'3	0	—0'2
Eastern Bengal and Assam.	1'56	1'77	—0'21	—12	—0'3	+1	+1'1
Bengal ...	1'79	1'23	+0'56	+46	—1'5	+2	+0'7
United Provinces ...	1'53	1'51	+0'02	+1	—0'6	—5	—0'2
Punjab ...	1'94	2'12	—0'18	—8	+1'6	—6	—1'0
North-West Frontier Province.	4'31	2'72	+1'59	+58	+0'8	+2	—0'4
Sind ...	0'77	0'53	+0'24	+45	+0'8	+5	—0'5
Rajputana ...	0'63	0'56	+0'07	+13	+0'2	0	—1'3
Bombay ...	0'07	0'18	—0'11	—61	—0'3	—3	+0'2
Central India ...	0'85	0'87	—0'02	—2	—0'6	—7	+0'2
Central Provinces ...	0'84	0'75	+0'09	+12	—0'9	—11	+0'1
Hyderabad ...	0'44	0'25	+0'19	+76	—0'4	—10	+0'7
Mysore ...	0'67	0'11	+0'56	+509	+0'9	+1	+0'5
Madras ...	1'64	0'86	+0'78	+91	—0'1	0	+0'8
Mean of India when the size of the above areas is taken into account.	1'05	0'90	+0'15	+17	—0'1	—3	0

Sub-division.	RAINFALL, JANUARY AND FEBRUARY.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
1. Bay Islands ...	2'09	1'15	+0'94	+82
2. Lower Burma ...	0'05	0'24	—0'19	—79
3. Upper Burma ...	0'20	0'26	—0'06	—23
4. Assam ...	1'64	2'23	—0'59	—26
5. Eastern Bengal ...	1'48	1'29	+0'19	+15
6. Bengal ...	1'41	1'28	+0'13	+10
7. Orissa ...	1'44	1'00	+0'44	+44
8. Chota Nagpur ...	2'22	1'27	+0'95	+75
9. Bihar ...	2'19	1'25	+0'94	+75
10. United Provinces, East ...	1'23	1'23	0	0
11. Do. do. West ...	1'89	1'83	+0'06	+3
12. Punjab, East and North...	2'16	2'39	—0'23	—10
13. Punjab, South-west ...	1'11	1'09	+0'02	+2
14. Kashmir ...	3'92	6'40	—2'48	—39
15. North-West Frontier Province ...	4'31	2'72	+1'59	+58
16. Baluchistan ...	1'34	2'83	—1'49	—53
17. Sind ...	0'77	0'53	+0'24	+45
18. Rajputana, West ...	0'39	0'29	+0'10	+34
19. Do. East ...	0'73	0'65	+0'08	+12
20. Gujarat ...	0'17	0'15	+0'02	+13
21. Central India, West ...	0'59	0'53	+0'06	+11
22. Do. East ...	1'36	1'50	—0'14	—9
23. Berar ...	0'11	0'52	—0'41	—79
24. Central Provinces, West ...	0'83	0'93	—0'10	—11
25. Do. do. East...	2'21	0'85	+1'36	+160
26. Konkan ...	0'07	0'18	—0'11	—61
27. Bombay Deccan ...	0'01	0'19	—0'18	—95
28. Hyderabad, North ...	0'11	0'24	—0'13	—54
29. Do. South ...	0'72	0'26	+0'46	+177
30. Mysore ...	0'67	0'11	+0'56	+509

Sub-division.	RAINFALL, JANUARY AND FEBRUARY.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
31. Malabar	0·54	0·40	+0·14	+35
32. Madras, South-east	2·00	1·21	+0·79	+65
33. Do. Deccan	0·87	0·23	+0·64	+278
34. Do. Coast, North	2·00	0·69	+1·31	+190

THE HOT WEATHER PERIOD, MARCH TO MAY.

II.—*General Summary.*—Meteorologically the hot weather season of 1908 contrasted strongly with the corresponding period of 1907. Weather was drier than usual in March, and the rainfall was scanty and below the normal throughout the country except locally in Madras, Mysore, Central India and the Central Provinces. Indeed over the greater part of northwest India the month was practically rainless. April was very unsettled over upper India, Baluchistan and in a small area in the peninsula, but over the rest of the country the month's precipitation was markedly in defect. May was also drier than usual and the rainfall more or less below the normal over nearly the whole of the country, but more specially in Malabar where it was in large defect. The rainfall of the hot season was thus short of the average all over the country with the exception of the Bay Islands, the Punjab, Kashmir, the North-West Frontier Province, Baluchistan, Berar, Central Provinces West and Mysore; the defect averaged more than 50 per cent. in amount in Hyderabad and Bombay.

On the mean of the whole country there was a defect of 25 per cent. in the seasonal rainfall, as compared with an excess of 20 per cent. in 1907.

As might be expected from the shortness of the rainfall, humidity and the amount of cloud were low in most divisions; the areas of the greatest dryness of the air were the Central Provinces and Hyderabad, where the percentage of saturation was about 8 in defect. The temperature conditions differed but little from the normal, the departures being within 1° of the normal in twelve of the fourteen divisions.

Burma.—The total precipitation of the period was below the average throughout the province, the deficiency averaging 24 per cent. in Lower Burma and 23 per cent. in Upper Burma. Humidity, cloud and temperature did not differ much from the normal.

Northeast India, including Orissa.—There was less rain than usual in all parts of the division; the proportional defect was greatest (about 50 per cent.) in Orissa, Chota Nagpur and Bihar, and least (18 per cent) in Eastern Bengal. The departures of temperature, humidity and cloud were determined by those of rainfall, but were not marked except in the case of Eastern Bengal and Assam where the quantity of cloud was appreciably less than the average.

The United Provinces, Central India and the Central Provinces.—Rainfall was practically normal in the west of Central India and of the Central Provinces, and 34 per cent. in excess in Berar; elsewhere there was a defect which was most pronounced in the Central Provinces East where it amounted to 84 per cent. The average amount of cloud was recorded except in Central India where skies were more clouded than usual. The moisture in the air was equal to the normal in Central India and below it in the Central Provinces and the United Provinces. Temperature was approximately normal.

Northwest India.—A large excess was shown in the precipitation over the North-West Frontier Province and Kashmir, and a small excess in the Punjab and Baluchistan, owing mainly to the heavy rain in April. In the rest of the division a defect occurred, ranging from 36 per cent. in Rajputana West to 100 per cent. in Gujarat. Humidity was low except in Sind and Kashmir, and temperature and cloud were both very nearly normal.

The Peninsula.—Mysore was the only part of the division where the precipitation was above the normal. The shortage exceeded 50 per cent. in amount in the Konkan, the Bombay Deccan and Hyderabad, being greatest in Hyderabad South which received only 18 per cent. of its normal quantity. On the mean of the period the air was very dry in Hyderabad, the region of largest percentage deficiency of rainfall. The departures of temperature and cloud were generally of no consequence.

Division.	RAINFALL, MARCH TO MAY.				DEPARTURE FROM NORMAL OF		
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.	Mean temperature.	Relative humidity 8 hrs.	Cloud 8 hrs.
Burma	8·15	10·65	—2·50	—23	+0·7	0	—0·5
Eastern Bengal and Assam ...	16·91	21·25	—4·35	—20	+1·2	—3	—1·1
Bengal	2·91	5·34	—2·43	—46	+1·1	—4	—0·6
United Provinces	0·60	1·21	—0·61	—50	+1·0	—5	—0·5
Punjab	1·84	1·71	+0·13	+ 8	—0·4	—6	—0·4
North-West Frontier Province ...	6·45	3·79	+2·66	+70	—1·3	—5	+0·5
Sind	0·22	0·39	—0·17	—44	—0·9	+2	—0·1
Rajputana	0·36	0·65	—0·29	—45	—0·6	—6	—0·5

Division.			RAINFALL, MARCH TO MAY.				DEPARTURE FROM NORMAL OF		
			Actual.	Normal.	Departure from normal.	Percentage de- parture from normal.	Mean tempera- ture.	Relative humi- dity 8 hrs.	Cloud 8 hrs.
			"	"	"		o		
Bombay	...	...	o'68	1'58	—o'9o	—57	—1'0	—3	—o'5
Central India	...	...	o'4o	o'54	—o'14	—26	—o'1	—1	+o'9
Central Provinces	...	...	o'98	1'18	—o'2o	—17	—o'5	—7	o
Hyderabad	...	...	o'48	1'86	—1'38	—74	+o'5	—9	+o'3
Mysore	...	...	5'73	5'19	+o'54	+1o	+o'1	+1	—o'1
Madras	...	...	3'48	4'48	—1'oo	—22	o	—1	+o'1
Mean of India when the size of the above areas is taken into account.			3'37	4'5o	—1'13	—25	+o'1	—4	—o'3

Sub-division.			RAINFALL, MARCH TO MAY.			
			Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			"	"	"	
1. Bay Islands	...	...	15'74	15'45	+o'29	+ 2
2. Lower Burma	...	...	11'28	14'81	—3'53	—24
3. Upper Burma	...	...	5'61	7'24	—1'63	—23
4. Assam	...	...	2o'99	27'o6	—6'o7	—22
5. Eastern Bengal...	...	...	12'59	15'27	—2'68	—18
6. Bengal	...	...	4'41	7'6o	—3'19	—42
7. Orissa	...	...	2'85	5'77	—2'92	—51
8. Chota Nagpur	...	...	2'o8	3'91	—1'83	—47
9. Bihar	...	...	1'64	3'12	—1'48	—47
10. United Provinces, East	...	...	o'46	1'12	—o'66	—59
11. Do. do. West	...	...	o'76	1'31	—o'55	—42

					RAINFALL, MARCH TO MAY.			
Sub-division.					Actual.	Normal.	Departure from normal.	Percentage departure from normal.
					"	"	"	
12.	Punjab, East and North	...	...	...	1'84	1'82	+ 0'02	+ 1
13.	Punjab, South-west	...	...	...	1'91	1'29	+ 0'62	+ 48
14.	Kashmir	...	...	...	8'45	6'88	+ 1'57	+ 23
15.	North-West Frontier Province	...	...	...	6'45	3'79	+ 2'66	+ 70
16.	Baluchistan	...	...	...	2'00	1'80	+ 0'20	+ 11
17.	Sind	...	...	...	0'22	0'39	— 0'17	— 44
18.	Rajputana, West	...	...	...	0'28	0'44	— 0'16	— 36
19.	Do. East	...	...	...	0'39	0'74	— 0'35	— 47
20.	Gujarat	...	...	...	0	0'27	— 0'27	— 100
21.	Central India, West	...	...	...	0'36	0'42	— 0'06	— 14
22.	Do. do. East	...	...	...	0'44	0'79	— 0'35	— 44
23.	Berar	...	...	...	1'31	0'98	+ 0'33	+ 34
24.	Central Provinces, West	...	...	...	1'01	0'97	+ 0'04	+ 4
25.	Do. do. East	...	...	...	0'29	1'84	— 1'55	— 84
26.	Konkan	...	...	...	0'70	1'98	— 1'28	— 65
27.	Bombay Deccan	...	...	...	1'12	2'31	— 1'19	— 52
28.	Hyderabad, North	...	...	...	0'57	1'50	— 0'93	— 62
29.	Do. South	...	...	...	0'39	2'15	— 1'76	— 82
30.	Mysore	...	...	...	5'73	5'19	+ 0'54	+ 10
31.	Malabar	...	...	...	7'68	10'55	— 2'87	— 27
32.	Madras, South-east	...	...	...	4'00	4'55	— 0'55	— 12
33.	Do. Deccan	...	...	...	2'08	2'51	— 0'43	— 17
34.	Do. Coast, North	...	...	...	2'01	3'42	— 1'41	— 41

THE SOUTH-WEST MONSOON PERIOD, JUNE TO SEPTEMBER.

III.—*General Summary.*—The monsoon currents were somewhat late in arrival in the coast districts, particularly on the west coast, and very slow in extending into the interior, with the result that in Central India and the northwest the establishment of the rains did not occur until about the 7th of July. As

measured by its rain-producing capacity the Bay current was weak throughout practically the whole of the monsoon season, and but seldom extended in full force into Bihar and the east of the United Provinces, where drought conditions prevailed almost incessantly. The Arabian Sea current on the other hand was very active during the greater part of the period from the second week of July to the 4th of September, more especially in northwest India ; but after this it declined quickly and by the 10th had ceased to give rain in upper India. During the remainder of September the activity of the current was shown chiefly in the peninsula, where under the influence of a storm from the Bay it gave a deluge of rain which resulted in destructive floods in Hyderabad in the last week of the month.

The rainfall of the whole period June to September was abundant over nearly the whole of the region served by the Arabian Sea current, and was exceptionally heavy over the comparatively dry zone of northwest India. It was on the other hand normal and, on the whole, favourably distributed in Burma, and in slight defect in Eastern Bengal and Assam, Bengal and the United Provinces. The deficiency was large locally in Bihar (45 per cent.) and considerable in the United Provinces East and Eastern Bengal (21 per cent.) The monsoon rains of 1908 were thus chiefly noteworthy for their abundance in the northwest, and their persistent weakness in parts of northeast India.

The statement below contains monthly data regarding these two features:—

Region of abundant rainfall.	PERCENTAGE DEPARTURE OF RAINFALL.				Region of drought.	PERCENTAGE DEPARTURE OF RAINFALL.			
	June.	July.	August.	September.		June.	July.	August.	September.
Punjab	—73	+33	+148	+11	Eastern Bengal	—19	—6	—51	—10
North-West Frontier Province ...	—62	+37	+89	+263	Bihar	—58	—44	—46	—35
Sind	—83	+248	+26	—100	United Provinces, East ...	—61	—15	+10	—57
Rajputana	—40	+113	+108	—19	.....	...	...	...	...

The excess in northwest India regarded as consisting of the Punjab, the North-West Frontier Province, Sind and Rajputana, is the largest on record, as is shown by the following statement giving data for all years of excess of rainfall:—

Excess of rainfall in northwest India, during rainy season of—

1875	1876	1878	1881	1882	1884	1887	1890	1892	1893	1894	1900	1908
+6.74	+1.41	+3.53	+1.07	+2.13	+2.89	+0.72	+0.05	+6.91	+3.01	+4.13	+1.92	+8.74

The departures of temperature, humidity and cloud were in the great majority of divisions small in amount and, as is ordinarily the case, were determined, almost entirely by those of the rainfall.

Burma.—The total monsoon rainfall was very nearly normal in amount being 2 per cent in excess in Lower Burma and 5 per cent in defect in Upper Burma. Temperature, humidity and cloud departed but little from the mean.

Northeast India, including Orissa.—The precipitation of the period was almost normal in amount in Assam, Bengal and Chota Nagpur, in slight excess in Orissa, and 21 and 45 per cent. in defect in Eastern Bengal and Bihar, respectively. Temperature and humidity agreed closely with the average. The quantity of cloud was very low in Eastern Bengal and Assam, and about normal in Bengal.

The United Provinces, Central India and the Central Provinces.—Rainfall was 22 per cent. in defect in the United Provinces East, normal or within 6 per cent. of it in the United Provinces West, Central India West and the Central Provinces West, and greater than usual over the rest of the division. The largest excess with respect to the normal occurred in Berar which obtained 24 per cent. more than its average supply. The departures of humidity and temperature were generally small in amount. Skies were clouded less than usual in the United Provinces, and to about the average extent elsewhere.

Northwest India.—Rainfall was unusually heavy in this division. The excess ranged from 4 per cent. in Gujarat and 9 per cent. in Kashmir, to 104 per cent. in Sind, 140 per cent. in Rajputana West and 142 per cent. in the Punjab Southwest. The departures of temperature, humidity and cloud were in general such as are associated with the prevalence of more rainy weather than usual, but were not however large in amount.

The Peninsula.—The rainfall of the period was in excess by 43 per cent. in Hyderabad South, 13 per cent. in Malabar and 10 per cent. in Madras Coast North; in defect by 11 per cent. in Mysore; and practically normal over the remainder of the division. On the average of the whole period the temperature and hygrometric conditions did not differ to any important extent from the normal.

Division.	RAINFALL JUNE TO SEPTEMBER.				DEPARTURE FROM NORMAL OF		
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.	Mean temperature.	Relative humidity 8 hrs.	Cloud 8 hrs.
Burma ...	60.45	60.38	+0.07	0	+0.1	+1	—0.1
Eastern Bengal and Assam.	55.79	63.40	—7.61	— 12	+0.3	—2	—1.6
Bengal ...	38.77	43.76	—4.99	— 11	+0.4	—1	—0.3
United Provinces ...	30.97	34.99	—4.02	— 11	+0.9	—4	—1.1
Punjab ...	25.37	16.20	+9.17	+ 57	—1.2	+1	+0.3
North-West Frontier Province.	15.51	8.61	+6.90	+ 80	—1.3	+2	+0.7
Sind ...	11.19	5.49	+5.70	+104	—0.6	+4	+0.6
Rajputana...	32.91	19.68	+13.23	+ 67	—1.9	+4	—0.2
Bombay ...	42.98	42.38	+0.60	+ 1	—0.3	0	+0.1
Central India ...	37.20	35.39	+1.81	+ 5	+0.6	+1	+0.8
Central Provinces ...	42.60	36.92	+5.68	+ 15	+0.1	—2	+0.5
Hyderabad ...	32.54	26.26	+6.28	+ 24	+0.2	—1	+0.7
Mysore ...	18.34	20.66	—2.32	— 11	—0.1	+1	0
Madras ...	25.73	24.23	+1.50	+ 6	+0.3	—1	+0.1
Mean of India when the size of the above areas is taken into account.	37.45	35.35	+2.10	+ 6	—0.1	0	—0.1

Sub-division.	RAINFALL, JUNE TO SEPTEMBER.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
1. Bay Islands... ..	73'58	60'15	+ 13'43	+ 22
2. Lower Burma	100'76	99'06	+ 1'70	+ 2
3. Upper Burma	26'65	27'95	— 1'30	— 5
4. Assam	62'07	64'06	— 1'99	— 3
5. Eastern Bengal	49'43	62'71	— 13'28	— 21
6. Bengal	45'97	44'66	+ 1'31	+ 3
7. Orissa	51'24	44'02	+ 7'22	+ 16
8. Chota Nagpur	42'40	44'92	— 2'52	— 6
9. Bihar	23'08	42'13	— 19'05	— 45
10. United Provinces, East	27'77	35'44	— 7'67	— 22
11. 'Do. do. West	34'60	34'46	+ 0'14	0
12. Punjab, East and North	28'08	18'84	+ 9'24	+ 49
13. Do. South-west	14'83	6'12	+ 8'71	+ 142
14. Kashmir	12'91	11'82	+ 1'09	+ 9
15. North-West Frontier Province	15'51	8'61	+ 6'90	+ 80
16. Baluchistan	2'89	2'10	+ 0'79	+ 38
17. Sind	11'19	5'49	+ 5'70	+ 104
18. Rajputana, West	25'60	10'67	+ 14'93	+ 140
19. 'Do. East	35'57	22'99	+ 12'58	+ 55
20. Gujarat	34'79	33'47	+ 1'32	+ 4
21. Central India, West	31'65	32'47	— 0'82	— 3
22. Do. East	48'51	41'04	+ 7'47	+ 18
23. Berar	33'56	27'16	+ 6'40	+ 24
24. Central Provinces, West	43'99	41'31	+ 2'68	+ 6
25. Do. do. East	56'82	47'47	+ 9'35	+ 20
26. Konkan	107'19	105'55	+ 1'64	+ 2
27. Bombay Deccan	24'77	25'02	— 0'25	— 1
28. Hyderabad, North	32'17	30'16	+ 2'01	+ 7
29. Do. South	32'86	23'01	+ 9'85	+ 43
30. Mysore	18'34	20'66	— 2'32	— 11

Sub-division.	RAINFALL, JUNE TO SEPTEMBER.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
31. Malabar	116·04	102·74	+ 13·30	+ 13
32. Madras, South-east	10·91	11·87	— 0·96	— 8
33. Do. Deccan	14·79	14·67	+ 0·12	+ 1
34. Do. Coast, North	26·76	24·34	+ 2·42	+ 10

THE RETREATING MONSOON PERIOD, OCTOBER TO DECEMBER.

IV.—*General Summary.*—The more striking features of the meteorology of this period were (a) the early cessation of the rains over the greater part of northern and central India, (b) the persistent feebleness of the Bay current in the peninsula, and (c) the feeble commencement of the cold weather rains in Persia and in the plains of northern India.

The rainfall of the whole season was in excess by 83 per cent. in Burma, 40 per cent. in Kashmir, and 8 per cent. in the North-West Frontier Province; it was very scanty in other divisions, more especially in Bengal, the Central Provinces and the greater part of the peninsula, which usually obtain moderate to heavy rain in this period.

As is ordinarily the case during periods of light precipitation, the air was drier and skies less clouded than usual over a large part of the country. A significant exception occurred however in the case of northwest India where, in spite of the defect of rainfall in the plains, the amount of moisture in the air was in excess, owing chiefly to the excessive precipitation of the monsoon period.

Temperature agreed with the normal within 1° in the case of twelve of the fourteen divisions; it was however generally inclined to be low.

Burma.—The seasonal precipitation exceeded the normal by 92 per cent. in Upper Burma and by 77 per cent. in Lower Burma. The amount of cloud over the division was normal, while the relative humidity was 3 per cent. in excess. Temperature was practically normal, the departure being less than 1°.

Northeast India, including Orissa.—Rainfall was generally much short of the normal: the defect was very large in Bengal, Bihar, Orissa and Chota Nagpur which obtained only from 20 to 30 per cent. of their respective normal quantities, while Eastern Bengal received a half. Both humidity and cloud were below the average. On the mean of the whole season the temperature conditions did not depart appreciably from the normal.

The United Provinces, Central India and the Central Provinces.—Light rain occurred in the United Provinces, the Central Provinces and Central India East, but in Central India West the weather was dry throughout: normally moderate rain is received in these areas in October. The air was generally drier and skies less clouded than usual. Temperature differed but little from the normal.

Northwest India.—Little or no rainfall occurred in Gujarat, Rajputana, Sind and the Punjab South-west, and only light precipitation in the Punjab East and North and Baluchistan. Weather was on the other hand more disturbed than usual in Kashmir and the North-West Frontier Province in December, and accordingly the total fall of the period was 40 per cent. in excess in the former region and normal in the latter. The air was slightly damper than usual in most of the plains districts, and drier in Baluchistan and Kashmir. Skies on the other hand were free from cloud to an unusual extent. Temperature did not depart appreciably from the average except in Rajputana where it was $1\frac{1}{2}^{\circ}$ in defect.

The Peninsula.—Rainfall was decidedly below the normal throughout the division: the proportional deficiency was most marked in Hyderabad, the Bombay Deccan, the Konkan, Mysore and the Madras Deccan, which received only 2, 19, 22, 32 and 35 per cent. of their respective normal amounts. The cloud proportion was normal or below normal, while humidity was low everywhere. The air was about 1° cooler than usual in Hyderabad, while elsewhere the departures from normal of temperature were small and of no significance.

Division.	RAINFALL, OCTOBER TO DECEMBER.				DEPARTURE FROM NORMAL OF		
	Actual.	Normal.	Departure from normal.	Percentage depar- ture from normal.	Mean temperature.	Relative humidity 8 hrs.	Cloud 8 hrs.
	"	"	"		o		
Burma ...	13.39	7.30	+6.09	+83	—0.6	+3	0
Eastern Bengal and Assam ...	3.57	6.08	—2.51	—41	—0.6	—3	—1.0
Bengal ...	1.09	4.20	—3.11	—74	—0.8	—7	—0.6
United Provinces ...	0.27	1.81	—1.54	—85	—0.2	—6	—0.8
Punjab ...	0.26	0.80	—0.54	—68	—0.5	+4	—0.7
North-West Frontier Province ...	1.34	1.24	+0.10	+8	—0.8	+5	—0.9
Sind ...	0	0.22	—0.22	—100	+0.1	+7	—0.8
Rajputana ...	0.06	0.68	—0.62	—91	—1.7	+1	—1.0
Bombay ...	0.67	3.68	—3.01	—82	—0.5	—5	—0.5
Central India ...	0.25	1.58	—1.33	—84	—0.2	—5	—0.3
Central Provinces ...	0.46	2.56	—2.10	—82	—0.9	—8	—0.7
Hyderabad ...	0.10	4.12	—4.02	—98	—1.3	—7	0
Mysore ...	2.74	8.65	—5.91	—68	+0.6	—6	—1.2
Madras ...	9.21	14.54	—5.33	—37	—0.4	—4	—0.4
Mean of India when the size of the above areas is taken into account.	2.99	4.44	—1.45	—33	—0.6	—3	—0.6

Sub-division.				RAINFALL, OCTOBER TO DECEMBER.			
				Actual.	Normal.	Departure from normal.	Percentage departure from normal.
				"	"	"	
1. Bay Islands	...	...	...	11'05	19'62	—8'57	—44
2. Lower Burma	...	...	...	15'46	8'75	+6'71	+77
3. Upper Burma	...	...	...	11'62	6'06	+5'56	+92
4. Assam	...	...	...	4'31	6'20	—1'89	—30
5. Eastern Bengal	...	...	...	2'81	5'94	—3'13	—53
6. Bengal	...	...	...	0'95	4'54	—3'59	—79
7. Orissa	...	...	...	1'91	6'94	—5'03	—72
8. Chota Nagpur	...	...	...	1'09	3'30	—2'21	—67
9. Bihar	...	...	...	0'86	2'88	—2'02	—70
10. United Provinces, East	...	...	...	0'40	2'31	—1'91	—83
11. Do. do. West	...	...	...	0'13	1'25	—1'12	—90
12. Punjab, East and North	...	...	...	0'33	0'92	—0'59	—64
13. Do. South-west	...	...	...	0'03	0'39	—0'36	—92
14. Kashmir	...	...	...	3'53	2'52	+1'01	+40
15. North-West Frontier Province	...	...	...	1'34	1'24	+0'10	+8
16. Baluchistan	...	...	...	0'67	1'52	—0'85	—56
17. Sind	...	...	...	0	0'22	—0'22	—100
18. Rajputana, West	...	...	...	0'05	0'41	—0'36	—88
19. Do. East	...	...	...	0'06	0'78	—0'72	—92
20. Gujarat	...	...	...	0'04	1'17	—1'13	—97
21. Central India, West	...	...	...	0'04	1'20	—1'16	—97
22. Do. do. East	...	...	...	0'77	2'32	—1'55	—67
23. Berar	...	...	...	0'09	2'58	—2'49	—97
24. Central Provinces, West	...	...	...	0'76	2'44	—1'68	—69
25. Do. do. East	...	...	...	0'61	2'72	—2'11	—78
26. Konkan	...	...	...	1'17	5'43	—4'26	—78
27. Bombay Deccan	...	...	...	0'88	4'65	—3'77	—81
28. Hyderabad, North	...	...	...	0'02	3'91	—3'89	—99
29. Do. South	...	...	...	0'18	4'30	—4'12	—96

Sub-division.	RAINFALL, OCTOBER TO DECEMBER.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
30. Mysore	2·74	8·65	—5·91	—68
31. Malabar	6·98	14·99	8·01	—53
32. Madras, South-east	13·73	18·03	—4·30	—24
33. Do. Deccan	2·59	7·38	—4·79	—65
34. Do. Coast, North	5·58	12·00	—6·42	—54



SECTION II.

EUROPEAN ARMY OF INDIA.

2. The average daily strength of the European army of India during 1908 excluding officers, was 68,933. In many

India. Appendices A and B to Section II.
Tables I, III and LIII.

parts of the country the monsoon rainfall was abnormal in both quantity and distri-

bution, and cholera, malaria and dysentery were unusually prevalent among the general population. As regards the health of the European troops it will be seen from the statement in the margin that the rates of admission to hospital and of mortality were higher than those of the previous year. The increased sickness and

India.		All causes. Ratios per 1,000.		
		1902-06.	1907.	1908.
Admissions	...	939.3	756.4	839.5
Constantly sick	...	57.7	46.4	45.7
Deaths	...	11.72	8.18	9.78
Invalids	...	30.05	25.50	15.64

mortality fell entirely upon the troops of the Northern army and was due chiefly to the greater prevalence of malaria, but excepting venereal disease nearly all the more important diseases were more prevalent than in 1907. There was a remarkable fall in the rate of invaliding; this was due partly to the healthiness

of 1907 but chiefly to the action taken to ensure that only those men should be invalided who were not likely to recover their health by a change to one of the hill stations in India.

The principal causes of death were enteric fever, cholera, and abscess of the liver; more than half the increase over the rate in 1907 being due to cholera, which caused 76 deaths as compared with two in that year.

The chief causes of invaliding were, in order, tubercle of the lungs, debility, malaria, syphilis, and valvular disease and disordered action of the heart, these together causing 361 invalidings (one-third of the total number) as compared with 811 in 1907. The causes of the decrease have already been mentioned.

If the marginal tables in the first paragraphs of this and the following section be compared it will be seen that the admission rate for European troops during 1908 was nearly one and a quarter times as high as that for Native troops and that the constantly sick rate was a little more than twice as high; the invaliding and death rates are not fairly comparable.

The average annual strength of the European troops with the Bazar Valley Field Force, the operations of which lasted from the 13th of February to the 2nd of March 1908, works out to 97 and altogether 45 admissions to hospital and one death were reported. The Mohmand Field Force was employed from the 17th of April to the 2nd of June and the average annual strength works out to 314. Altogether 524 admissions to hospital and 50 deaths occurred, 41 of the deaths being due to a severe outbreak of cholera.

3. The relative healthiness of the troops comprising the Northern and

Northern and Southern Armies. Divisions.
Stations. Appendix A and Tables I, III, IV
and V.

Southern armies can be ascertained very easily with the aid of Appendix A to this section. The much greater amount of

sickness and mortality in the Northern army is noteworthy and from the

statistics in Table I of the standard tables it will be seen that nearly all the principal diseases contributed to the increase. The statistics relating to Divisions (Appendix A) show that the troops in the 1st (Peshawar) and 2nd (Rawalpindi) Divisions suffered most and that, as a result chiefly of cholera and enteric fever, the death rates in these two Divisions were very much higher than in 1907. The statistics of troops in the Quetta, Poona, and Secunderabad Divisions were more favourable than in the other Divisions during 1908.

In 1908 no fewer than twenty-two stations, as compared with seven last year, come in the list of those that, according to the statistical method adopted in this report, are to be regarded as having been especially unhealthy. Full abstracts of the sanitary reports on these stations will be found in Table V so it is not necessary to do more than draw attention to them here. As regards the prevalence of important diseases in plains stations where the average annual strength was 500 or more, the incidence of enteric fever was greatest at Jubbulpore, Rawalpindi, Peshawar and Sitapur; of malarial fevers at Meerut, Agra, Ferozepore and Multan; of dysentery at Madras, Jubbulpore, Kirkee and Allahabad; and of venereal diseases at Fort William, Madras, Shweba and Fyzabad.

4. In Appendix B to this section and in Table II of the standard tables will be found the statistics of European troops arranged according to the geographical areas into which India has been divided from the meteorological point of view. It will be seen that the admission rates were higher than in 1907 in the five areas numbered consecutively IV to VIII, which include the plains of Bengal and Orissa, the United Provinces, the Punjab, the North-West Frontier Province, Sind, Rajputana, and Central India. In all these areas, except the United Provinces, the monsoon rainfall was in excess of the normal, the excess being very great in the South-West of the Punjab, Western Rajputana, Sind and the North-West Frontier Province. The areas numbered VII and VI (which include the North-West Frontier Province and the Punjab) were the most unhealthy for European troops during 1908 and the Hill stations (XIIa) were, as usual the most healthy. Malaria, enteric fever, and other fevers were the diseases that caused areas VII and VI to be so unhealthy.

5. Influenza caused an admission rate of 6.3 per thousand among the European troops as compared with 12.5 per thousand in the previous year and 11.4 in 1906. The disease was confined almost entirely to the troops of the Northern army, those located in group VII (Indus Valley) being affected to the extent of 21 per thousand of their strength. Cases were reported from thirty-two of the 82 stations for European troops but in most the number was very small, Peshawar, Sialkot and Meerut being the only stations where the disease prevailed in epidemic form. In Peshawar the disease appeared in February but most of the cases occurred during August and September. In Sialkot 66 of the 82 cases occurred during July, August and September.

6. Cholera was unusually prevalent among the general population of India during 1908 and 93 cases with 76 deaths occurred among the European troops. Of these cases no fewer than fifty were among the troops of the Mohmand Field

Force which was operating in a highly infected area. The Royal Munster Fusiliers suffered severely, 43 cases with 36 deaths occurring in four days. A board of inquiry appointed to investigate the cause of the outbreak in this regiment considered that it was due to the drinking of infected water from wayside sources on the march to Shabkadar. The cases that occurred among troops not of this field force were distributed over seventeen stations of which Cawnpore, Peshawar and Rawalpindi were the only ones with more than four cases.

7. Small-pox was also more prevalent in India and there was an increase in the number of cases among European troops, fifty-three admissions to hospital and two deaths being recorded as compared with thirty admissions and one death in 1907. One or more cases were recorded in twenty stations during 1908; there were fourteen at Lucknow, five at Rawalpindi and five at Fyzabad. Of the two patients who died one had been vaccinated in infancy but had not been revaccinated, the other bore no marks and there was no record of his having been vaccinated.

8. In a number of stations occupied by troops of the Northern Army during 1908 an unusually heavy monsoon rainfall was followed by a severe prevalence of malaria with the result that among European troops the number of admissions to hospital for this disease rose from 10,662 (154 per thousand) in 1907 to 16,824 (244 per thousand), and the number of deaths from 14 to 35. The troops of the 1st (Peshawar), 7th (Meerut), and 5th (Mhow) Divisions located in the Indus Valley, Upper Sub-Himalaya, Central India and Deccan geographical groups suffered most, but excluding the Hill stations the disease was more prevalent than in 1907 in 39 stations and was less prevalent in only 17. Omitting stations with an average strength below 200 the highest admission rates were recorded at Delhi, Meerut, Agra, Ferozepore, Multan, Peshawar and Hyderabad, the rates in all these being above 612 per thousand.

Anyone who has before him a table showing for a number of years the admission rates from malaria among European troops in India cannot fail to be struck by the lowness of the rates in recent as compared with early years. The rate for the decennial period ending with 1888, for example, was 485 per thousand, for the decennium ending with 1898 it was 374, and for that ending with 1908 it was only 223. The reduction has been brought about by a diminution in the rates recorded at a large number of stations, the quinquennial rates during the last 30 years in a few of which are shown in the following table—

			Admission rates from malaria per 1,000 of average strength.					
			1879 to 1883.	1884 to 1888.	1889 to 1893.	1894 to 1898.	1899 to 1903.	1904 to 1908.
Ambala	...	...	507.4	1423.5	222.7	294.6	280.5	118.1
Amritsar	...	...	1982.7	1107.8	1407.7	713.5	648.9	259.8
Delhi	...	...	2456.8	2395.2	1200.3	1308.7	882.3	707.0
Ferozepore	...	...	678.9	718.1	635.3	839.5	835.9	349.2
Karachi	...	...	1554.1	511.9	451.3	1173.0	371.5	199.5
Lahore Cantonment	...	...	1736.2	1232.6	1048.4	937.8	831.5	292.7*
Peshawar	...	...	1735.8	750.5	928.4	925.0	384.4	495.7
Rawalpindi	...	...	936.3	292.2	418.0	417.1	246.4	226.6

* In one year (1908) of the period the statistics of Fort Lahore have unavoidably been included.

To review in a detailed manner the many causes to which the reduction might be ascribed would occupy an unreasonable amount of space, but a few remarks are necessary. There are to be considered in the first place the causes by which a statistical reduction might be brought about without a reduction in the prevalence of the disease. An important cause of this kind was introduced when, as a result of Major Ross's discovery, definite operations against mosquitoes were started in nearly every cantonment. The immediate result of these operations was a re-awakening of interest in malaria and especially in its diagnosis. Medical officers who believed that the inevitable outcome of starting a "mosquito brigade" would be an immediate reduction of malaria, unconsciously began to be more careful in diagnosis. The use of the microscope became more frequent and, whereas in former years almost every case of "fever" was diagnosed as malaria, it now became the rule to record many cases under the headings simple continued fever, heat-stroke, debility, and congestion of the liver. In some stations the reluctance to diagnose a case as malaria was so great that no case was so recorded unless parasites were found at the first and only examination of the blood. The change in diagnostic procedure produced a decline in recorded malaria, but at the same time it caused the admission rate from simple continued fever to rise steadily from 14 per thousand in 1902 to 74 per thousand in 1908. Attention was drawn to the matter in the issue of this report for 1906 and an example was given showing that although in seven stations the total admissions from malaria in 1905-06 were less by 2,288 than in 1901-02 the number recorded under simple continued fever was greater by 2,308 so that the total number recorded under both headings was about the same in the two periods. The change in diagnostic procedure was not, however, the only influence tending to lower the admission rates of malaria among European troops in India, for in September 1903 there was introduced the system known as "treatment in barracks", under which patients whose disease is mild are not admitted to hospital, but receive treatment as out-patients, their names not being entered in the returns showing admissions to hospital. During the years 1904 to 1908 no fewer than 25,668 cases of malaria among European troops in India were treated out of hospital* and to this must be ascribed a considerable proportion of the reduction that (as will be seen from the table given above) is so evident in the rates of admission to hospital during the most recent quinquennial period. In view of the effect of these two causes it is difficult to estimate how much of the recorded reduction in malaria is due to a real diminution of prevalence. There are, however, certain measures which in the opinion of nearly all medical officers have produced a real diminution. Of these the most important are: (1) the "after treatment" now given in all stations to patients who have been admitted to hospital with malaria, (2) the prophylactic administration of quinine, (3) the retention of regiments in hill stations until the worst period of the malaria season in the plains is passed. For carrying out the system of "after treatment" nominal rolls of patients who have suffered from malaria are kept in the station hospitals and the patients are required to attend at first daily and afterwards twice weekly for from six weeks to two months to receive a dose of quinine. The treatment has caused a marked decrease in the number of re-admissions for relapses, which are the chief cause of the high admission rates in certain stations. The prophylactic administration of quinine has been carried out for many years in nearly all stations in the plains, but with very varying strictness in different places and at different periods. The arrange-

* In 1908 the number so treated was 16,703 as compared with 4,944 in 1907.

ments adopted have been detailed each year in this report and as regards 1908 a few words will suffice. The measure was carried out in 53 of the 58 stations in the plains, the dose usually given being 10 grains on two consecutive days weekly. The results reported by medical officers are more conflicting and not so satisfactory as usual but in not a few stations the unsatisfactory results may, I think, justly be attributed to the lack of strictness with which the administration was carried out. At Rawalpindi the medical officer's previous experience had led him to have little faith in the measure and during 1908 the administration was carried out without medical supervision. The report from Multan contains no mention of the plan adopted for ensuring that the soldiers received the doses. At Allahabad the quinine was distributed by the sergeants of companies. At Cawnpore it was issued under the supervision of a subordinate. At Karachi it is said that the corps of Artillery "being rather distant from the hospital" carried out the quinine parades without medical supervision. Other stations at which the administration was not under medical supervision were Mhow, Nasirabad and Nowgong. It is quite possible, of course, that quinine given in the doses and at the intervals usually recommended may sometimes fail to prevent malaria among European soldiers, but before accepting this view it is necessary to show that reported failures cannot be accounted for by the common reasons that are found to afford an adequate explanation of failures among other classes of people in India. Further remarks on this subject will be made in the section relating to the general population (Section VI) and on the whole it appears not improbable that as regards reported failures among European troops the distribution of effort over a number of quite dissimilar anti-malarial measures has tended to prevent that concentration of attention upon quinine prophylaxis from which alone successful results by this method can be attained. The practice of keeping regiments in hill stations longer than was customary some years ago and the removal of regiments to camps at some distance from the barracks have certainly tended to diminish the amount of malaria, and it is suggested by several medical officers that these measures should be more widely adopted in very malarious years. Lastly there are the measures taken to prevent men being bitten by mosquitoes and those taken with the object of destroying mosquitoes. The use of mosquito-curtains is still confined to a few regiments in about nine stations. Operations against mosquitoes by such measures as can be accomplished by mosquito brigades have now been in practice in nearly all stations in the plains for several years. In most stations they are thoroughly carried out, but it is the general opinion of medical officers that by limited measures of this kind an appreciable reduction of the number of anopheline mosquitoes is not produced. In one or two stations measures of a more extensive kind have been undertaken, notably in Lahore Cantonment, in regard to which the results obtained are being examined by a Committee appointed by the Government of India.

9. In the statistical returns for 1908 the heading "Pyrexia of uncertain origin"

Pyrexia of uncertain origin.

appears for the first time and it may be said at once that it has been used by medical officers as a substitute for the heading "simple continued fever" which has been removed from the Nomenclature of Diseases. There were in all 5,096 admissions to hospital recorded under the heading during 1908 which gives an admission rate of 73.9 per thousand, but in addition 1,526 cases were treated "in barracks"; if these are included the incidence rate would be

96.1 per thousand. It appears from the reports of medical officers that a number of the cases were malarial in origin and that a few were cases of dengue. No death was recorded under the heading during the year.

10. Three admissions to hospital during 1908 were due to Malta fever as compared with five in the previous year, seven in 1906, and four in 1905. The cases in 1908 occurred at Sialkot, Barian, and Murree. The source of infection was not discovered in any case and in all the diagnosis was made on the results of the serum test. The patient at Barian was treated for some time as a case of lumbago.

11. The heading kala-azar appears for the first time in the returns for 1908 and during the year four cases with one death were recorded among European troops. The cases occurred at Madras, Wellington, Jhansi and Jubbulpore. In two of the cases the diagnosis was confirmed by finding the Leishman-Donovan parasites in blood taken from the spleen or liver.

12. Among the problems frequently discussed in the annual summary of the literature upon enteric fever that has appeared for many years in this place, none is of more importance, and none is more difficult and confusing, than that which owes its origin to the discovery in diseases clinically like true typhoid fever, of bacilli that differ in some respects from the true typhoid bacillus. As a result chiefly of the use of better media and methods of isolation and differentiation, the number of these "typhosus-like" organisms is now very considerable and is being added to every year. In the literature for the year with which we are now dealing, there is an account by Baumann¹ of no fewer than 40 typhosus-like bacilli isolated by him from the fæces or urine of patients who, presumably, were suffering from diseases resembling enteric fever, and Rimbaud and Rubinstein² record the isolation from the fæces of 28 enteric fever patients of many varieties of bacilli belonging to the coli-Eberth family. The same observers report in another article that they were able to isolate from the fæces of ten persons 23 varieties of typhosus-like or coli-like bacilli. Indeed the bacilli found in various enteric-like diseases, and usually regarded by their discoverers as the cause of the disease in which they were found, are now so numerous, and their bacteriological position as well as their properties and relations to one another are so uncertain, that in the present state of knowledge some sort of classification in groups is essential. For this purpose most authors are content to describe a type bacillus for each group and to arrange under it the very large number of "intermediate forms" that resemble it most closely. Passing from the bacilli allied to the *B. typhosus* on the one hand, to those allied to the *B. coli* on the other, the following are the names of the bacilli that are taken as the types of the different groups now usually recognised:—1. *B. fæcalis alkaligenes*; 2. *B. typhosus* (Eberth-Gaffky); 3. *B. paratyphosus* A (Brion-Kayser); 4. *B. paratyphosus* B, (Schottmüller); 4 a. *B. enteritidis* type I (Flügge, Aertryck, etc.); 4 b. *B. typhi murium* (Löffler); 4 c. *B. suipestifer* (Salmon-Smith); 4 d. *B. psittacosis* (Nocard); 5. *B. enteritidis* type II (Gærtner, etc.); 5 a. *the rat pathogenic bacilli* (Danysz, Isatschenko, Dunbar, and "ratin"); 6. *B. paracoli*; 7. *B. coli*. Without attaching great importance to the subject it is of interest to note that in addition to the usual list of outbreaks due to the *B. typhosus*, which need not be

referred to here, the literature for the year contains records of illness said to be due to bacilli of one or other of nearly all the above groups. Laforgue³ gives an account of a case which was considered clinically to be enteric fever but in which the method of blood culture showed the presence of the *B. fæcalis alkaligenes*, and Trincas and Olla⁴ report five cases of severe gastro-intestinal illness as a result of eating cheese from which the same bacillus was isolated. Proescher and Roddy⁵ describe 48 cases of fever due to type A of the paratyphoid bacillus and Bondi also describes a case due to this bacillus. Among the many cases and outbreaks ascribed to type B of the paratyphoid bacillus may be mentioned the more or less considerable outbreaks reported by Konrich⁶, Collin and Fortineau,⁷ Marx,⁸ and Ruge and Rogge.⁹ Savage and Gunson¹⁰ report an outbreak of 18 cases of illness with 3 deaths due to eating brawn from which a bacillus described as the *B. enteritidis*, Aertryck type, was isolated, and Fleischanderl¹¹ observed three cases of severe and three of mild illness due to a bacillus described as the *B. typhi murium*. It was the active ingredient of a preparation that had been used for the destruction of field mice and in order to ascertain whether the cases were really due to it Fleischanderl himself took some of the culture medium the result being that he suffered from symptoms of acute enteritis similar to the symptoms complained of by the original patients. The bacillus was isolated from specimens of the fæces. Pepere¹² records a fatal case of an enteric fever-like disease which he considered to be due to the *B. suipestifer*, and Drewes¹³ records a case of illness contracted from a parrot in the alimentary canal of which a paratyphoid bacillus of type B (? *B. psittacosis*) was found. Handson, Williams, and Klein¹⁴ have reported an outbreak of twelve cases of severe but not fatal gastro-intestinal illness accompanied by fever and collapse, which they believed to be due to a *rat pathogenic bacillus* contained in a preparation used for the destruction of those animals. Finally Meinicke and Neuhaus¹⁵ record a fatal case of food poisoning due to a bacillus which they describe as the *B. paracoli*, and Schöne, Babes and Feodorasco, Wiens,¹⁶ and others record cases of typhoid-like illness said to be proved bacteriologically to be due to the *B. coli*. As representing examples from the literature of only one year this list is sufficiently long, and it is plain that if we agree with those who consider that the bacilli found by them are distinct species and are the cause of the disease in which they were isolated, we ought at once to say that the clinical term enteric fever includes a number of diseases which it is advisable in future to call by their correct names, such as the paratyphoid A and B diseases, the enteritidis I and II diseases, and many others that are presumed to be caused by various similar but distinct bacilli. But, according to Kolle and Hetsch¹⁷, experience of the bacteriological findings in cholera and other specific infectious diseases is entirely against the correctness of such a classification of the typhoid-like diseases under numerous headings each with its own name. And those authorities point out that the extensive researches carried out in the German bacteriological stations during recent years show that at present, as regards enteric fever and the diseases allied to it, we have really to do with only two etiologically different diseases, namely typhoid and paratyphoid, the latter including the illnesses due to meat poisoning; and that as regards the bacilli, the distinctness and pathogenic significance of the majority of the so-called "intermediate forms" is by no means sufficiently proved, so that at present they should be classed in one or other of only two species or groups, namely as typhoid or paratyphoid, the latter including (perhaps as a sub-species or group) the various bacilli of meat poisoning. In addi-

tion it is to be noted that, in comparison with the widespread nature of diseases caused by true typhoid and paratyphoid bacilli, the diseases said to be caused by intermediate forms are quite rare and must be regarded as interesting pathological conditions rather than as important factors in sickness and death. So far as our present knowledge of the bacteriology of enteric fever in India justifies an opinion (and it must be acknowledged that the subject requires further investigation than it has yet received) this is the correct view to take in this country, for as regards the great majority of cases here diagnosed as enteric fever it is known that they are due to the true typhoid bacillus, and as regards a few cases it is known that they are due to one or other of the well established paratyphoid bacilli. Perhaps, when bacteriological investigation of cases becomes more general, bacilli of intermediate types will occasionally be isolated, but it is unlikely that such bacilli will be found to be a frequent cause of disease. Nevertheless the subject of these intermediate and rare forms is not without importance as affording possibly a clue to the diagnosis and source of origin of some of the anomalous so-called "sporadic" cases that occur often at wide intervals of time and in an isolated manner among British and Native soldiers in India. In regard to the source of origin of such cases the subject may possibly be of importance from our knowledge that although the classical *B. typhosus* is parasitic in man alone some of the other bacilli of the family are commonly present in animals, from which human beings may, directly or indirectly, become infected. Further remarks upon this aspect of the enteric fever problem will be made in the paragraph dealing with epidemiology.

The bacteriological methods now in general use for the diagnosis of typhoid and paratyphoid fevers were dealt with at length in these reports for 1906 and 1907 and the literature that has since appeared upon the subject can therefore be dealt with briefly.

The isolation of the bacillus from the peripheral blood continues to be regarded as the best method of diagnosis in the early stages of the disease, and during recent years the chief work upon the method has had for its object the removal of difficulties of technique. Advance in this connexion has been great, and it may be said that at the present time the method bids fair to take its place alongside the Widal test as a routine clinical method of diagnosis. According to Kolle and Hetsch the best results are obtained, when the modern method of planting in bile is adopted, by the use of from 1 to 2.5 c. c. of blood, ¹ an amount which is not greater than can be obtained without undue inconvenience to the patient by pricking the lobe of the ear moderately deeply. In the literature under notice Peabody ² reports that this plan was adopted as a routine measure in the general hospital at Massachusetts and that a positive result was obtained in 100 per cent. of cases examined during the first week of the disease, in 70 per cent. during the second week and in 43 per cent. during the third and fourth weeks. Bates ³ has shown, by the examination of 68 patients, the great value of the method for the diagnosis of mild and atypical cases. The observations of Stühlern ⁴ on 42 cases tended to show that as a rule in severe cases the bacilli are present in the blood stream in greater number and remain there longer than in mild cases. In regard to the media and methods usually employed for isolating the bacilli from the blood, Bohne ⁵ as a result of a comparative study of the methods recommended respectively by Schottmüller,

Conradi, Meyerstein, and Rosen-Runge, reported that he had been most successful with the method of Meyerstein. Conradi⁶ has criticised his results chiefly on the ground that the investigation was not quantitative. Other observations of importance on this subject during the current year were those of Busse⁷ who reported four cases of intestinal tuberculosis (two being fatal) in persons who were chronic typhoid bacillus carriers and in whom a pure culture of the typhoid bacillus was isolated from the peripheral blood. It was presumed that the bacilli had again invaded the blood by way of the intestinal lesions.

The uses and limitations of the Widal test are described in detail in articles by Volk⁸ and Kreissl⁹ that have appeared in the recently published *Handbuch der Technik und Methodik der Immunitätsforschung* of Kraus and Levaditi. The causes of fallacy in the test are of two kinds, those of technique and those which arise from a peculiarity of the patient's serum or other unavoidable condition. In regard to technique the chief cause of fallacy, according to Kreissl, arises from the employment of an unsatisfactory strain of the bacillus. Different strains of the same bacillus differ greatly as regards their property of being agglutinated and for clinical purposes the most easily agglutinated strain is not always the best to employ. Certain strains, also, can be agglutinated by normal sera even in a high dilution, and other strains commonly exhibit the phenomenon called "spontaneous agglutination". In order to avoid some of these difficulties the use of a mixture of several strains of the test bacillus has been recommended, but Geisse¹⁰ and others have obtained unsatisfactory results with such mixtures and in using them there is the disadvantage that one or more of the strains may not possess all the properties of the classical bacillus. The age of the culture, the medium on which the test bacillus is grown, the amount of the growth used, the temperature at which the mixture of test bacilli and serum is kept, and the length of time during which the action is allowed to continue are all of great importance. When causes of fallacy under the above headings have been avoided, error or uncertainty may arise (1) from the use of the test too early in the course of the disease; (2) from the presence of certain constitutional or other conditions (such as chlorosis or jaundice or the influence of some medicines) which may cause the serum of the patient to act in an anomalous manner; (3) from the fact that in some proved cases of typhoid the Widal reaction remains negative throughout the illness; (4) from the presence of a concurrent infection with other organisms, such as staphylococci; (5) from the occurrence of the phenomenon of group agglutination by which is meant that the serum agglutinates the bacillus of another disease as well as that of the disease from which the patient is suffering; (6) from the occurrence of the phenomenon first observed by De Blasi that agglutination hardly results with a low dilution of the serum, but is marked when a high dilution is employed; (7) from the fact that the patient has been recently inoculated against enteric fever or has previously suffered from the disease. In regard to the positive results sometimes obtained with the blood of patients suffering from jaundice, Kolle and Hetsch point out that the illness is frequently due to a typhoid cholecystitis, and Kreissl mentions the frequent infection of the biliary system with *B. coli* or allied organisms which might cause a positive result by the phenomenon of group agglutination. He notes that in cases of jaundice a positive result with the test is by no means constant and usually occurs only in low dilutions of the serum so that it cannot often be a source of error. Of greater importance are the positive results which have sometimes been recorded in cases of malignant endocarditis, sepsis, influenza,

malaria, miliary tuberculosis and meningitis." It appears, however, that in a number of these cases the condition is one of a mixed infection with typhoid and another organism.

It is of interest to know whether positive results with the Widal test are the rule in regard to healthy chronic bacillus-carriers. Forster and Kayser obtained positive results with the blood of the majority of such persons whom they examined and Lentz reported a positive result, mostly with a dilution of only 1 in 50 and in a few cases of 1 in 100, as regards ten out of eleven carriers. Other observers have reported that except when only low dilutions are employed positive results are rare, and Kolle and Hetsch state that in the blood of healthy bacillus-carriers it is not the rule to be able to prove the presence of specific agglutinins. In the examination of chronic bacillus-carriers at the Naini Tal depôt in India in 1908 the blood of one of the most persistent carriers was found to possess little or no agglutinating power. Gaechtgens¹² in an investigation to ascertain whether the estimation of the opsonic index would be of assistance in detecting carriers examined 16 of these people and in six cases obtained a positive result with the Widal test in dilutions of 1 in 200 or more. In six others the test was positive in a dilution of 1 in 100 and in the remainder in a dilution of 1 in 50.

On account of the phenomenon of group agglutination the Widal test cannot be entirely relied upon for the diagnosis of paratyphoid fever, and in cases presumed to be due to this disease as well as in all cases in which the result of the test is uncertain it should be supplemented by other diagnostic methods.

As a method of diagnosis during the acute stages of the disease the isolation of the bacillus from the fæces or urine has now been superseded almost entirely by the methods above referred to, but as it is the only method of investigation which enables us to say when an enteric fever patient may be allowed out of quarantine and the only method by which bacillus-carriers can be discovered, it must always remain of the highest importance. Chiefly on account of the absence of a selective method of enrichment of typhoid bacilli similar to that which has proved of such service for the isolation of the cholera vibrio, the difficulties attending the isolation of typhoid bacilli from the fæces are great, but every year new methods and media are being tried and the investigation is much easier and the results more sure than they were even a few years ago. Nearly all the newer methods and media have given good results in the hands of some workers and it is doubtless true that success depends far less upon the particular medium used than upon the skill, practice, and experience of the worker. The following was the routine adopted in the search for bacillus-carriers at the Naini Tal convalescent depôt in 1908. A tin box containing a strong test tube fitted with a cork through which passed the handle of a small spoon was used for the collection of the samples of fæces. Half the spoonful of fæces was transferred to a small sedimenting tube and 5 c. c. of tap water added to it. The fæces were broken up and mixed with the water by a glass rod and then allowed to stand for an hour at the end of which time the solid matter and feebly motile colon bacilli, and cocci had sunk to the bottom of the tube. The actively motile typhoid bacilli, when present, remained in the upper part of the fluid, a few c. c. of which were then poured on a previously prepared plate of the Drigalski-Conradi medium. The fluid was spread over the plate with a bent glass rod and a second plate was then inoculated by means of the same rod. The plates were allowed

to dry in the air and then placed in the incubator for 24 hours. At the examination of them on the next morning, such colonies as appeared to be those of the typhoid bacillus were tested with a specific serum of high agglutinating power and if the result was positive, inoculations on agar slopes were made and the next day the growth was tested with agglutinating sera and by planting into various sugar media and by animal experiment. The investigation of the urine was begun by pouring 5 c. c. on to a Drigalski-Conradi plate, the same procedure as for the examination of the fæces being afterwards carried out. In regard to the numerous methods and media employed by different workers it may be noted that in addition to the Drigalski-Conradi medium which is essential in all laboratories, Kolle and Hetsch recommend those of Hoffmann and Ficker, of Endo, and of Lentz and Tietz, the constituents of all of which have been stated in previous issues of this report. Among the new media described in the literature of the current year may be mentioned those of Conradi,¹³ Kindborg,¹⁴ Loeffler,¹⁵ Padlewsky,¹⁶ and Hesse.¹⁷ An important matter in connexion with some of these media is the high cost of the chemically pure materials which they contain and this might probably prohibit their use to such an extent as is necessary in the daily work of large laboratories where the search for bacillus carriers is carried out as a routine measure.

The subject of bacillus-carriers still occupies a chief place in the literature of enteric fever and as yet there is no indication that the importance of these agents in the spread of the disease has been exaggerated. It is especially interesting that the work done upon the subject is likely to prove of great benefit to India. The depôt which was opened at Naini Tal in April 1908 received up to the end of the year 310 convalescents of whom 190 underwent the bacteriological examinations necessary for the detection of carriers and 120 remained to be examined. All convalescents are kept at the depot more than four months so that it is necessary to discover only those men who excrete the bacilli longer than this. Among the 190 men examined two were found to be excreting the bacilli six months after their attack, one eight months, one twelve months, one sixteen months, and one eighteen months; five of these men were invalided to England during the year and one remained at the depôt. In Germany three terms are now in general use to denote the different classes of carriers, (1) *akute Bazillenträger* (temporary carrier) which signifies a person who is excreting the bacilli without suffering and without having ever suffered from enteric fever, (2) *Bazillenträger*, which signifies a person who excretes the bacilli for less than three months after an attack of enteric fever, (3) *Dauerausscheider*, which signifies a person who excretes the bacilli for more than three months after an attack of enteric fever. The six carriers discovered during 1908 in the examinations at the Naini Tal depôt come in the last (which is by far the most important) of these classes and the proportion of such persons discovered (3 per cent.) was about the same as in other countries. Frosch ' reports that in the campaign against enteric fever on the south-west frontier of Germany among 6,708 persons who during three years suffered from the disease 166 (2·47 per cent.) were found to be excreting the bacilli more than three months after their attack and 144 (2·15 per cent.) less than that time. These figures include the results of the examination of female as well as male patients, and the significant fact was established that women formed more than 80 per cent. of the

people classed as *Dauerausscheider*. The finding explains the frequency with which outbreaks of enteric fever in so-called "typhoid houses" and in institutions are traceable to a female servant. Five out of seven "carrier outbreaks" that have been referenced since last year for the purposes of this report were due to a female carrier but the figures do not include outbreaks among British troops, in regard to all of which a female agent could be excluded. The important features of outbreaks caused by carriers have been illustrated by examples in several previous issues of this report and as the instances recorded in the literature for the present year throw no new light upon the subject it is unnecessary to describe them in detail, but a short account of one or two of the more interesting instances will be found in the paragraph relating to infection by milk. The problem of how to rid typhoid carriers of the bacilli which they harbour and excrete is at present perhaps the most important in connection with the disease. It rests largely upon a study of the relation of the bacilli to the biliary organs in which they are stored. Chiarolanza and J. Koch² have attacked the subject by endeavouring to ascertain the path by which the bacilli reach the gall bladder. The results of their examination of the changes found in the gall bladder in fatal cases of enteric fever and of a series of experiments on animals render it probable that the bacilli reach the gall bladder not from the intestine, but from the blood stream. They consider that the bacilli which are in the blood of a patient suffering from enteric fever form small emboli in the capillary network of the mucous membrane of the gall bladder the result being necrosis of the papillæ and an emptying of the clumps of bacilli into the viscus. They report the occurrence of a similar process in the large and small bile ducts and it is obvious that if the bacillary foci are actually in the substance of the mucous membrane and are not lying free in the interior of the gall bladder or bile passages, the difficulty of attacking them is enormously increased. The presence of bacillary foci in the biliary passages as well as in the gall bladder also shows that extirpation of the gall bladder, an operation advocated by Grimme and Dehler,³ may not effect the desired result. Treatment with drugs such as salol and urotropine which it was hoped might kill the bacilli in the intestinal and urinary passages has proved quite ineffective, and at present the most hopeful suggestion is possibly that of Liefmann who recommends that an attempt should be made to change the intestinal flora and to introduce bacteria inimical to the enteric bacillus. In England the Army Medical Advisory Board appointed a committee to investigate the best methods of treating the bacillus-carriers who had been invalided from India and as a result it was decided to treat two of the patients with cultures of Metchnikoff's Bulgarian lactic acid bacillus grown in extract of malt and three with subcutaneous injections of antityphoid vaccine. These experiments are being continued.⁴

But while there can be no doubt that the prevention of enteric fever depends largely upon the detection and isolation of the human host who is harbouring the bacillus it would doubtless be unwise, in the present state of knowledge, to regard this as representing the whole solution of the problem. Among other things the matter is complicated by the fact that although man may be the only host of the classical *B. typhosus*, he is certainly not the only host of the other bacilli in the family. The researches of Uhlenhuth,⁵ Hübener,⁶ and many others have shown that a number of domestic animals frequently harbour bacilli of the paratyphoid groups which may cause enteric fever in man and that, indeed,

we have to reckon with animal as well as human bacillus-carriers. The infection of man may result not only from eating the flesh of animals infected with such bacilli (and many instances of this kind of poisoning have been referenced in previous issues of this report), but from direct or indirect contact with living animal bacillus-carriers which may or may not show symptoms of disease. Rimpau⁷ and others consider that contact with such animals offers a reasonable explanation of the frequency with which paratyphoid bacilli are found in human beings and that although the strains are often non-virulent and therefore not dangerous, the possibility that they may at any time become virulent has to be reckoned with. Among the instances of infection from animal bacillus-carriers reported in the literature for the year under review the case reported by Drewes⁸ may be mentioned. It refers to a clergyman who was attacked with a disease which was diagnosed first as influenza then as pneumonia and finally as paratyphoid fever due to the *B. paratyphosus* type B. The researches to ascertain the source of infection were fruitless until attention was directed to a parrot which the clergyman had tended during an illness associated with diarrhœa and emaciation. The bird was examined bacteriologically with the result that the *B. paratyphosus* type B. was isolated from its alimentary canal. Further enquiries to ascertain how the parrot became infected led to the discovery that the dealer from whom the bird had been bought was a paratyphoid bacillus-carrier. The apparent ease with which the somewhat complicated cycle of events was traced in this instance may justify a difference of opinion in regard to the accuracy of the findings, but it is only by recognising the possibility that enteric fever may be contracted in such an unusual manner and by carrying out investigations with this possibility in mind that we can hope ever to hunt down the source of infection in some of the so-called "sporadic" cases that occur in India. We are aware, for example, that horses and dogs—the animals with which the British soldier in India comes into closest association—are among those in which bacilli of the coli-paratyphoid groups have been frequently found, and without for a moment suggesting that the cavalryman not infrequently derives his infection from a bacillus-carrying horse or the infantryman from a bacillus-carrying pet dog, it is not out of place to suggest that the recognition of such a possibility might be sufficient reason for carrying out what would be, even if the results were entirely negative, an interesting and instructive investigation.

It is now generally recognised that enteric fever is spread (1) by a vehicle such as water or milk the source of supply of which is common to a large number of people, and (2) by contact infection from person to person. The first method usually causes the simultaneous infection of many people and results in a sudden and extensive, but often short epidemic, the second is associated with the continued prevalence for a considerable period of a variable number of cases occurring at short intervals. In different localities and conditions the relative importance of these methods differs greatly and similar differences exist as regards the relative importance of the various vehicles and agencies concerned in the spread of the disease by each method. The trend of opinion in regard to the rôle of the methods and vehicles has been chronicled year by year in this report and for the current year the following remarks will serve to bring the record up to date.

The rarity with which in recent years outbreaks of enteric fever have been attributed to polluted drinking water indicates an important change of opinion in

regard to the part played by that medium in spreading the disease. With the exception of a report upon an outbreak in a rural district in England¹ and one upon an outbreak of 24 cases in a seminary near Washington,² the available literature for the year contains no account in which a waterborne view held the chief place and there is no doubt that at present most observers, before favouring such a view, require evidence more conclusive than that which a few years ago would have been considered amply sufficient. This has been emphasised by Welch and others at the recent annual meeting of the American Medical Association. It has been exemplified also by Konrich³ in his account of an outbreak in which, despite the discovery of typhoid bacilli in the water-supply, this medium was proved to be not responsible for the cases; and Konrich points out that in an attempt to establish the correctness of a theory that the outbreak is waterborne, the results of bacteriological research, unless confirmed by the epidemiological findings, may lead the observer astray.

The reports of milkborne epidemics and outbreaks are (as has been usual during recent years) considerable in number and for the most part conclusive in proof. Trask⁴ has published accounts of 317 epidemics spread by this medium and Harrington⁵ reports that of 18 outbreaks investigated under his direction during the last two years in different parts of Massachusetts 14 were traced to the milk supply. In most of the outbreaks described in detail during the year with which we are now dealing, a chronic bacillus-carrier was responsible for the contamination of the milk but an extensive outbreak described by Harrington⁶ was due to a typhoid patient in the acute stage of the disease. This outbreak was one of 410 cases in six weeks. The milkman who was proved to be responsible had been ailing for 14 days before he was discovered to be suffering from enteric fever and during that period he had been handling the milk daily. He died eight days later and the nature of his illness was confirmed at a post-mortem examination. In this instance the milk was infected by the distributing agency, but in other instances contamination occurred at the farm of supply. An example of this is given by Lumsden and Woodward⁷ in a report of an outbreak of 54 cases in a part of the city of Washington. Careful investigation of this outbreak caused suspicion to rest upon a particular farm from which the milk vendors whose customers were being attacked obtained their supplies of milk. The inhabitants of the farm numbered 13 including the proprietress who had suffered from typhoid fever 18 years before the investigation and one of the employés who had suffered eight years before. A fatal case of typhoid fever had also occurred on the farm seven years before the investigation. At the time of the enquiry no history of recent illness on the farm could be obtained and the infection of the milk could be accounted for only on the assumption that one of the persons who handled the milk was a chronic carrier. Specimens of the dejecta of the 13 inhabitants were obtained and the proprietress was found to be excreting numerous typhoid bacilli in her fæces. The supply of milk from the farm was at once stopped, and the outbreak ceased suddenly eight days later.

Kersten⁸ has shown that in raw milk as sold by the trade the paratyphoid bacillus type B retains its vitality and virulence and multiplies for at least $4\frac{1}{2}$ months. At the end of this period his experiments were discontinued.

Although the literature for the year contains no article dealing exclusively with the subject of contact infection, this mode of spread still holds the position of high importance which it attained some years ago. Kolle and Hetsch in the

recently published second edition of their text-book on experimental bacteriology and infectious diseases attach very great significance to it especially in the maintenance of endemic typhoid in cities, towns, and rural districts, and draw attention to its great importance in the spread of the disease in armies when the exigencies of war or other circumstances necessitate the crowding together of large numbers in a confined area. They point out also how the continuance of a small number of cases as a result of contact infection provides opportunities for the contamination of water and milk supplies by which extensive epidemics are caused. In the discussion of the epidemiology of typhoid fever at the recent annual meeting of the American Medical Association a number of speakers drew attention to the great importance of this mode of spread and some striking instances of its influence were given.⁹ Dr. Welch stated that in Washington during the summer of 1907 about 19 per cent., of the cases were found to be due to contact infection, Dr. Hurty gave an instance in which this method alone had caused 65 cases in a Soldiers' Home, and Dr. Freeman stated that a systematic investigation of 30 outbreaks in Virginia had shown that by far the majority of cases of typhoid fever in the smaller towns were due to the conveyance of infection from house to house either in articles of food or by the house to house visits of patients' friends. The ways in which infection by contact may occur are many and various and in devising plans to guard against them it is highly important to know how long the bacilli can remain alive when deposited in fæces or urine on the ground or in a latrine or in a filth trench or on articles of bedding or clothing. The experiments on this subject made by the members of the committee of enquiry on enteric fever in India were referred to in this report for 1906 and Major Morgan and Captain Harvey have carried out a similar investigation at the Naini Tal convalescent depôt during the year under review.¹⁰ Their experiments were made on the bacilli voided with the urine and fæces of chronic bacillus-carriers. The following were some of the results: (1) urine was passed by a typhoid bacillus-carrier on a patch of dry soil which received direct sunlight for $3\frac{1}{2}$ hours. A sample of the soil taken six hours after the beginning of the experiment yielded numerous typhoid bacilli, but none could be detected in a sample taken at the end of thirty hours, (2) urine was passed by the same person on the earthen floor of a dark hut. Typhoid bacilli were detected in samples of the earth taken at intervals up to 30 hours but not later, (3) from a piece of towelling contaminated with urine containing 50,000 typhoid bacilli per c. c. and exposed to daylight the bacilli could be recovered up to the fourth day and from a similar piece kept in the dark up to the eleventh day, (4) fæces were passed by a bacillus-carrier and dealt with in a manner similar to that adopted in dry earth methods of disposal; from the surface of the fæcal mass typhoid bacilli could be recovered for a week and from the interior of the mass for 18 days, but not later, (5) from a piece of blanket smeared with infected fæces and kept in a closed vessel in the shade, the bacilli were isolated up to the fortieth day. While these results show that the typhoid bacillus is incapable of living very long outside the human body they indicate that the bacillus lives yet sufficiently long to make the danger of infection by contact, especially in latrines, a very real one. A recent investigation by Brückner¹¹ is of interest in this connexion as is also an investigation by Galvagno and Calderini¹² who found that typhoid bacilli can retain their vitality and virulence for at least fifteen days in the contents of privies and earth-closets. These three observers draw attention to the danger of infected material being spread by the agency of flies or dust or on the boots of people who visit the latrines, and as regards the importance of flies in spreading infection Captain

Ainsworth, R. A. M. C., has shown how closely the seasonal incidence of enteric fever and the prevalence of flies corresponds in Poona. ¹³ But evidence of this kind, however carefully worked out, cannot lead beyond the suggestion that a connection between the prevalence of house flies and of enteric fever is possible, and on the other hand Dr. L. O. Howard's study of the seasonal abundance of flies in Washington during 1908 showed that in that city the seasonal prevalence of flies and of enteric fever did not correspond. It was found also that the proportion of cases of enteric fever was not higher among persons living in unscreened houses or among those whose occupations rendered them especially liable to be attacked if flies were an important agent in the spread of the disease ¹⁴.

The modern method of attempting to reduce the prevalence of typhoid fever—which differs from the old in being essentially a method of attack rather than of defence—has been frequently outlined in previous issues of this report. It is being carried out on a large scale in the campaign on the south-west frontier of the German empire. Kirchner's complete account of this campaign was referred to in last year's summary and in the literature for the current year Klinger ¹ describes the epidemiological findings and results up to 1908. The area under the control of the German Commission includes four towns of considerable size as well as a number of industrial and some very poor agricultural districts, and its population is nearly 2,300,000. Before the campaign was initiated the number of cases and deaths reported as due to typhoid fever by no means represented accurately the true amount of sickness and death caused by this disease, and it will therefore be difficult for some years to estimate by statistics the full effect of the operations. The following table compiled from statistics given in the article by Klinger shows the figures for the area under the control of the German Commission from 1904 to 1907.

Year.	ACTUAL NUMBERS.		RATIOS PER 10,000 OF POPULATION.	
	Cases.	Deaths.	Cases.	Deaths.
1904	2,567	235	11·2	1·02
1905	2,052	215	8·9	·94
1906	2,080	220	9·1	·96
1907	1,787	189	7·8	·82

As regards the separate statistics for the 31 circles in the area a considerable fall in the number of cases occurred in 21 circles and no fall or a rise in nine. Klinger expresses the opinion that, considering the statistics refer chiefly to a period when the organisation is being built up and perfected, the belief is justifiable that great success will ultimately be attained. The epidemiological findings were of great interest and showed the difficulties which

attend an attempt to reduce the prevalence of the disease among the civil population in so wide an area. During 1906 and 1907, the source and vehicle of infection were definitely discovered in only 36 per cent. of all the cases, that occurred. This 36 per cent. represented a total of 1,397 cases, and in no fewer than 1,272 of these the source of infection was a person actually suffering from the disease, only 125 of the cases being traced to healthy bacillus-carriers. The large part played by the former class of persons in the spread of the disease was attributed by Klinger to their great number in comparison with the number of healthy carriers and to the higher virulence of the bacilli excreted by such patients. One of the chief difficulties was that of discovering cases at a sufficiently early stage of the disease to prevent new infections being caused by them, and on account of this difficulty it happened that of the 1,397 cases in which the source of origin was discovered no fewer than 912 were referable to patients before the time when they came under control. During the investigations 431 healthy bacillus-carriers were found, and of these 211 excreted the bacilli for less than three months and 220 longer than this. In regard to the mode of spread, direct contact played by far the greatest part, infection by the hands alone being traceable 1,315 times as compared with only 59 times in which the vehicle was found to be milk, 22 times in which it was found to be contaminated food, and twice in which it was found to be water.

A list of recent articles dealing with the statistics of anti-typhoid inoculation² will be found as usual at the end of this Section and among them may be noted a paper by Dr. Maynard which is the first published account of an attempt to treat the subject according to "modern statistical methods." On the very imperfect data dealt with in the paper the conclusion is arrived at that "the general trend is to show a positive result in favour of the process."

As usual the reports upon enteric fever by medical officers in charge of station hospitals are concerned largely with accounts of the enquiries made with the object of ascertaining the source and mode of infection, and as usual the enquiries failed in the great majority of instances to yield a definite result. The failure is generally due to the difficulties that always attend an enquiry into the origin of cases occurring at intervals of some days and often of some weeks, but it may not be out of place to remark upon the possibility that the well worn phrase "the source of infection could not be traced" would appear less frequently in the reports if in the conduct of the enquiries more attention were directed to the line of investigation that recent advances in knowledge of the epidemiology of enteric fever have shown to be all-important. With a number of noteworthy exceptions, to which reference will presently be made, the tendency to be content with an endeavour to ascertain the particular *vehicle* by which infection was conveyed, rather than to conduct the enquiry with the object of discovering the human host responsible, is a characteristic of many reports. To limit an enquiry to the problem of the rôle played by water, milk, lemonade, dust, flies, and latrines, is to fail to realise that the usefulness of an opinion, however accurate, in regard to this problem is unimportant in comparison with the value of the discovery of the human host who is harbouring the bacillus and infecting those media. That the search for and discovery of persons who are likely to be carriers of infection is not beyond the powers of the usual medical staff in most of

Enteric fever. Reports by medical officers.

the larger stations is apparent from the successful results attending the adoption of this method of enquiry in Wellington, Sialkot, Mhow, Jubbulpore, Erinpura, and some other stations. At Wellington the search was carried out with great thoroughness by the bacteriological examination of the excreta of all convalescents three times a week, and by this means one man was found to have chronic typhoid bacilluria 13 months after his attack of enteric fever. At Sialkot the search revealed the great danger which may arise from the employment of native cooks in the kitchens of British regiments. A servant in the officers' mess who had previously been assistant cook was found to have typhoid bacilluria and two cooks of one of the squadrons of the cavalry regiment were found to be suffering from the same condition. Afterwards all natives applying for the post of cook were examined and by this means another carrier was detected. In the reports from Mhow, Jubbulpore and Erinpura the method of search was limited to an examination of the blood of suspected persons by the Widal test, and although a person whose blood gives a positive reaction with this test is not necessarily a carrier the method affords a good starting point for more detailed investigation. At Mhow blood specimens from three natives employed in the regimental institutes (two in the coffee shop and one in the bakery) were found to give a positive reaction to this test and at Erinpura the blood of one of the servants in the officers' mess where three officers had apparently contracted enteric fever was found to give a similar reaction. At Jubbulpore one European and three native servants were dismissed on the grounds of a positive reaction with the test. In the reports from Jhansi, Dinapore, Dalhousie and Fyzabad attention is also directed to the danger of native cooks. In the first of these stations suspicion rested on two cooks employed in the Royal Artillery coffee shop. One of these men had been employed as a sweeper before being engaged as assistant cook and the other lived with his mother who worked as a sweeper. It is said that the outbreak of enteric fever in Jhansi ceased about three weeks after the dismissal of these men. In view of these instances the opinion expressed in one of the Divisional Sanitary Officer's reports to the effect that "in the present state of knowledge as to the cause of the rise and fall of enteric incidence all we can do towards prevention lies in general sanitary measures and inoculation" cannot be regarded as correct. The examples just referred to deal chiefly with the danger arising from "chronic carriers" but the reports contain, as usual, much evidence of the danger of infection from patients during the acute stage of the disease and this is a matter to which frequent reference has been made in previous issues of this report. The danger is fully recognised at all stations, but despite the careful precautions adopted three orderlies nursing patients suffering from enteric fever at Rawalpindi contracted the disease and four orderlies at other stations; in addition two men became infected while they were patients in hospital, one at Sialkot by visiting a friend who was dying from enteric fever, the other at Nasirabad. But the chief danger from this source arises because many soldiers neglect to report that they are ill until they have suffered from fever for some days. Strenuous efforts to overcome this foolish prejudice against reporting sick are made at nearly all stations, but every year the reports contain evidence that many men fail to profit by the advice. At Rawalpindi and at Ahmednagar it was found that men had been ill for as long as seven to ten days before reporting the fact. In concluding this portion of the remarks upon the reports it is worthy of mention that other stations at which it was thought that an undiscovered carrier

of infection among the troops either in the acute stage of the disease, the convalescent stage, or the stage termed chronic carrier, was to blame were Campbellpore, Ranikhet, and Jullundur, but that at Nowshera, Multan, Kamptee and Thayetmyo it was definitely stated that carriers were not responsible.

It has been stated already that much attention is given in the reports to the different vehicles by which infection may be conveyed. As a general rule the evidence implicating any particular vehicle is very slight. No outbreak was conclusively traced to water during the year but it was suggested as the probable cause of infection of patients at Sitapur, Agra, Chakrata, Allahabad, Purandhar, Sialkot and some other stations. At Sitapur twelve of the 20 cases occurred during a fortnight. At Agra it was said that the *B. coli* was found in the municipal drinking water and that the presence of the *B. typhosus* was suspected. Milk was suggested as being possibly the cause of cases at Rawalpindi, Multan and Shwebo, ice-creams at Karachi, lemonade at Allahabad and soda water at Sialkot. Food taken in eating houses outside cantonment limits was thought to be the infecting agent at Calcutta, Madras and Quetta, and as usual a number of cases were attributed to articles of food or drink obtained in native bazaars. Infection through the medium of latrines was considered the most likely cause at Ahmednagar and Subathu and infected clothing was suspected with good reason at Kirkee. Among Europeans and Natives about 40 cases were contracted on the Bazar Valley expedition, the limited area of the camps, their proximity to insanitary villages, fouled ground, bad water, the prevalence of flies and of dust, and the incessant toil inseparable from active service being regarded as the important factors concerned. There is, as usual, a long list of stations at which either flies or dust, or both, were considered to be all-important but as regards flies the evidence is chiefly of the nature that they were present in large numbers about the time that most cases of enteric fever occurred; the evidence implicating dust is very similar. The presence of flies in such numbers as to constitute a "plague" was reported at Poona, Kirkee and Secunderabad.

13. The statement in the margin shows at a glance the number of admissions to hospital, the number of deaths, and the admission and death rates per thousand

Enteric fever in 1908—Appendices A and B to Section II and D to Section III, Table IV.

of average strength, recorded from enteric fever among European troops in India during each of the last five years. Although as compared with 1907 there was a slight increase in the admission rate, the death rate was lower than in any year since 1885. The average length of stay of patients in hospital during 1908 was only 68 days as compared with 80 in 1907 and as a result the average number constantly sick was less by about 16 and the total loss of service due to the disease was less by 5,542 days than in that year. Taking into account the cases that remained under treatment at the end of 1907 the case-mortality during 1908 was only 17 per cent. which compares favourably with the figures for males of approximately the same ages under treatment in hospitals in England.

Years.	Admissions.	Deaths.
1904 ... {	1,395	267
	19.6	3.76
1905 ... {	1,146	213
	16.1	2.99
1906 ... {	1,095	224
	15.6	3.19
1907 ... {	910	192
	13.1	2.77
1908 ... {	1,001	190
	14.5	2.76

14. The disease was more prevalent and caused a higher mortality among troops in the Northern than among those in the Southern army and as regards Divisions its incidence was greatest among troops in the 1st (Peshawar) and 2nd (Rawalpindi) Divisions, and least among troops in the 10th (Burma) Division. Although the number of cases recorded as having occurred among troops of the Bazar Valley and Mohmand Field Forces is small the influence of these expeditions is perhaps seen in the high incidence of the disease among troops of the Peshawar Division. The admission rates in all except four of the geographical groups were higher than in 1907; in the North-West-Frontier and Indus Valley group (VII) which contains the stations Peshawar and Nowshera the admission rate rose from 7.4 to 20.0 per thousand.

15. The increased prevalence of the disease during 1908 is indicated by the fact that admission rates of over 30 per thousand were recorded in eleven stations as compared with six in 1907. The following is a list of stations (irrespective of strength) at which the highest rates were recorded, and in Appendix C will be found the admission and death rates in stations where the strength is over one thousand.

In group V.	In group VI.	In group VII.	In group IX.	In group XIIa.	In group XIIb.
Benares ... 53.4	Campbellpore 36.6	Peshawar 31.3	Jubbulpore 34.6	Subathu 48.9	Furandhar 57.1
Sitapur ... 31.0	Rawalpindi 31.9	Multan 30.8		Cherat 30.2	Murree 41.4

The stations where the largest numbers of cases occurred were Rawalpindi (93), Secunderabad (80), Meerut (54), Peshawar (52), Bangalore (43), and Quetta (42). The points of interest in connection with the prevalence of the disease at these and other stations have been dealt with in a previous paragraph.

16. Among European troops in India there were only two cases of plague during 1908 as compared with eight in the previous year and seventeen in 1906. Mhow and Kirkee were the stations at which a case occurred during 1908, the case at the latter station being fatal. Measles caused 45 admissions to hospital and erysipelas fifteen. Of beri-beri 35 cases were recorded, 28 being at Aden and six at Rangoon. The medical officer at Aden reported that the incidence of the disease was not greater among beer drinkers than among others and that it did not depend upon residence in particular buildings. The medical officer at Rangoon stated that the disease is endemic in the town. Dengue caused 165 admissions as compared with 79 in the previous year. More than two-thirds of the cases occurred at Thayetmyo where it was said that the disease became epidemic during the rains. The remaining cases were recorded at Rangoon, Madras, St. Thomas' Mount, and Dum Dum. At Madras it was considered that a number of the cases returned as "pyrexia of uncertain origin" (of which there were 74) were probably cases of atypical dengue. Rheumatic affections, as usual, were responsible for a large number of admissions to hospital (namely, 511) and 27 soldiers were invalided for these diseases.

17. The total number of cases of tubercle of the lungs treated during the year was 93 and the total deaths were sixteen. Tubercle of the lungs. Appendices A to Section II, and E to Section IV. Tables III and IV. The rate of admission to hospital fell from 1·6 per thousand in 1907 to 1·3 and the number of men invalided fell from 107 to 73. The stations at which the largest numbers of admissions occurred were Cawnpore, Colaba, Rawalpindi and Aden but the number was not more than six in any station. The death rates from tubercle of the lungs among European troops, Native troops, and native prisoners during the year were in the proportions of 10, 18, and 181, but the practice of invaliding and of granting "sick leave" in the army prevents the figures being comparable.

18. In accordance with the practice adopted in the new edition of the Nomenclature of Diseases, pneumonia has been removed from the list of respiratory diseases and is recorded as an infective disease. Pneumonia. Appendices A and B to Section II and H to Section III. Tables XI, III and IV. The admission and death rates from it in 1908 were 3·9 and ·39 per thousand, respectively, as compared with 2·8 and ·35 in 1907, the total numbers of admissions and deaths in each year being 269 and 27 in 1908 and 195 and 24 in 1907. The disease was considerably more prevalent in the Northern than in the Southern army and as regards its incidence in comparison with its incidence in 1907 it was more prevalent in nine of the geographical areas and less so in only two. Excluding stations where the average strength was below 200, Hyderabad, Dum Dum, Nowgong, Allahabad, and Dagshai were the stations with the highest admission rates during 1908.

19. There was a decrease in the admission rate on account of respiratory diseases from 21·9 per thousand in 1907 to 17·4 and there were six deaths from these diseases as compared with eight in that year. Respiratory diseases. Appendices A and B to Section II. Tables III and IV. The Upper Sub-Himalaya area was that in which the diseases were most frequent, and as regards stations with a strength of over 200, Bellary, Bareilly, Ahmednagar, and Kirkee were those in which the highest admission rates were recorded. Of the six deaths under the heading two were due to broncho-pneumonia, one to bronchitis, two to empyema, and one to cirrhosis of the lung.

20. Dysentery was more prevalent among all classes of people in India than during 1907, and the admission and death rates among European troops rose from 11·7 and ·33 per thousand, respectively, to 14·4 and ·42. Dysentery and diarrhoea. Appendices A and B to Section II and E to Section IV. Tables XII, XIII, III and IV. The disease was more prevalent and fatal in the Southern than in the Northern army, and as regards Divisions it was most prevalent among troops in the 5th (Mhow), the 9th (Secunderabad) and the 6th (Poona) Divisions. As regards geographical groups the disease was most prevalent in the Southern India group (XI) and most fatal in the Burma Inland group (II). Excluding stations with a strength below 150, the highest admission rates were recorded at Saugor, Madras, and Jubbulpore. For the European army as a whole the months of greatest prevalence were August and September, and those of least prevalence February and January.

There were 1,217 admissions with one death on account of diarrhoea as compared with 992 admissions and 29 deaths on account of dysentery. The admission rates were highest among troops in groups VII and VI, and among stations

where the strength was 200 or above, Leborg, Neemuch, and Nowshera were those at which the disease was most prevalent.

21. Abscess of the liver was considerably less prevalent during 1908, the number of admissions to hospital being 115 and the deaths 55 as compared with 165 and 70, respectively, in the previous year. The disease caused more admissions and deaths among the troops of the Northern than of the Southern army, and as regards Divisions the admission rate was highest among troops in the 2nd (Rawalpindi) Division and the death rate among troops in the 1st (Peshawar) Division. One or more cases occurred in 46 stations, the largest numbers of cases being in Lucknow, Poona, and Rawalpindi.

Hepatic abscess. Appendix A to Section II.
Tables III and IV.

22. There were only 71 admissions to hospital and only three deaths from alcoholism as compared with 94 admissions and seven deaths during 1907. A very satisfactory decline in the admissions to hospital under this heading has occurred in recent years.

Alcoholism. Table LIII.

23. The recorded admission rate for all venereal diseases in 1908 was 69·6 per thousand, the death rate was ·04 per thousand and the constantly sick rate was 8·8 per thousand. These figures are represented in actual numbers by 4,801 the total admissions, 3 the deaths, and 606·13 the number constantly sick throughout the year. The admissions were less by 1,435 than in 1907 and the total number constantly sick was less by 129·14. The causes of the rapid and steady fall in the rates relating to these diseases which has formed so remarkable a feature of the health statistics of European troops in India during recent years have been referred to at length in previous issues of this report. The table in

Venereal diseases. Tables III and IV.

Years.			Number of names on the syphilis register.
1904	...	...	2,947
1905	...	...	1,470
1906	...	...	936
1907	...	...	797
1908	...	..	545

of those who contract the disease during the year to which the register relates.

the margin shows that the indication of the decline in syphilis afforded by the figures of the "syphilis register" continues to be satisfactory. The register contains the names of all men who came under treatment for syphilis for the first time, which means that it contains the names

The average period of detention in hospital of a patient suffering from any form of venereal disease during 1908 was 46·21 days, and the total loss of service involved amounted to 221,844 days, the non-efficiency thus reckoned being more than three times as much as that incurred on account of enteric fever.

There were only three deaths attributed to venereal diseases during 1908 and the number of men invalided for this cause was only 74. The figures compare favourably with those of former years.

Venereal diseases are always less prevalent among troops serving in the north of India than among those serving in the south, and in 1908 the admission rate among troops of the Northern army was only 58·3 per thousand as compared with a rate of 84·1 among troops of the Southern army. As regards Divisions the admission rates were, as usual, highest among troops in the Burma and Secunderabad Divisions. Excluding stations at which the average strength

was below 100, the highest admission rates were recorded as regards the Northern army at Fort William, Delhi, and Fyzabad, and as regards the Southern army at Madras, Mandalay, and Shwebo.

The admission rate on account of gonorrhœa was 37·8 per thousand and that on account of soft chancre 16·1 as compared with rates of 48·0 and 19·7 respectively in 1907. Fifteen men as compared with 21 in the previous year were invalided for gonorrhœa during 1908.

24. The total number of deaths recorded as a result of heat-stroke during
Heat stroke. Appendix A. Tables III, IV 1908 was 37 as compared with 26 in the
and LIII. previous year and 39 in 1906. The
stations at which most deaths from this cause occurred were Nowshera, Luck-
now, Lahore Cantonment, and Peshawar.

25. The mean annual number of suicides reported in the decade 1897 to
Suicide. Table LIII. 1906 was 20, and in 1908 the number was
26 of which nineteen were by gunshot, four
by cut throat, two by drowning and one by being run over by a train.

26. From the European army of India 1,078 men were invalided in 1908 (15·64
Invaliding. Appendix A. Table LIII. per thousand of strength) as compared with
1,768 (25·50 per thousand) in the previous
year. In the Northern army the rate was 16·06 per thousand of strength and in
the Southern army it was 16·17 per thousand.

The practice of sending men, who a few years ago would have been invalid-
ed to England, to one of the hill stations in India has been the chief factor in re-
ducing the invaliding rate among European troops. The chief diseases for which
invaliding was necessary in 1908 have already been mentioned in paragraph 2.
Of the total number of men invalided 82 per cent were under 30 years of age,
and 70 per cent had been less than five years in India.

27. The average strength of commissioned officers with European troops in
Officers. Appendix D to Section II. Table India during 1908 was 2,188, and among
XVIII. them there were 1,462 cases of sickness,
92 were invalided, and 21 died during the year. The admission and death rates
were higher than in 1907, but the invaliding rate fell from 55·35 per thousand to
42·05.

Enteric fever was more prevalent among the commissioned officers than
among the non-commissioned officers and men, but the death rate among them
was only 1·37 per thousand as compared with 2·76 among the men. The
officers suffered much less than the rest of the army from malaria and this was
attributed in some stations (*e.g.*, Lahore cantonment) to the careful use of mos-
quito curtains and other measures of individual prophylaxis. No case of plague
occurred, but there were eight non-fatal cases of small-pox and one fatal case of
cholera. Enteric fever and malaria were the chief causes of invaliding.

28. The average strength of the women during 1908 was 3,696, an increase
Women. Appendix E to Section II. Tables of 200 on that of the previous year. The
XIX, XX, XXI, and LIII. statistics of health were unfavourable, the
rates of admission to hospital and of death being 719·7 and 13·53 per thousand,
respectively, as compared with 657·6 and 6·58 in 1907. The constantly sick rate

was 30·5 per thousand as compared with 28·8. The chief causes of admission to hospital were, as usual, debility, malaria, and diseases peculiar to women, which together accounted for 62·82 per cent of the total number of admissions from all causes. Of the 50 deaths seven were due to enteric fever, seven to small-pox, seven to childbirth and abortion, six to malaria, three to cholera and three to pneumonia. The admission rate from small-pox was twelve times as high as among the men and the death rate was sixty-three times as high. Except the neglect of vaccination and revaccination among the women there is no reason that adequately accounts for the great difference.

20. The admission, constantly sick and death rates among the children were all much higher than in 1907. The strength was 5,819, the admission rate 450·1 per thousand, the constantly sick rate 16·3 and the death rate 50·18. The chief causes of sickness were malaria, diarrhœa, and respiratory diseases which together accounted for 34 per cent of the total admissions. Of the 292 deaths 46 were attributed to diarrhœa, 30 to debility and immaturity at birth, 27 to respiratory diseases, 21 to convulsions and 15 to dysentery. There were 21 admissions to hospital with two deaths from enteric fever and 361 admissions with 13 deaths from malaria. Among the exanthemata to which children are liable there came under treatment during the year 190 cases of measles, 20 of chicken-pox, eight of small-pox and two of scarlet fever. There were also 36 cases of whooping cough, eleven of mumps and eleven of diphtheria.

The strength at different age periods, the death rates per mille and the relative liability to death at each of these periods are shown in Table XXV. Immaturity at birth was the cause of 14 per cent of the total number of deaths among children under six months of age.

PAPERS AND BOOKS REFERRED TO IN SECTION II.

Abbreviations used below.

A. H.	= Archiv für Hygiene.
A. K. G. A.	= Arbeiten aus dem kaiserlichen Gesundheitsamte.
A. P.	= Annales de l'Institut Pasteur.
B. I. P.	= Bulletin de l'Institut Pasteur.
B. J. H. H.	= Bulletin of the Johns Hopkins Hospital.
B. K. W.	= Berliner klinische Wochenschrift.
B. M. J.	= British Medical Journal.
C. B.	= Centralblatt für Bakteriologie.
D. M. W.	= Deutsche medizinische Wochenschrift.
H. R.	= Hygienische Rundschau.
I. M. G.	= Indian Medical Gazette.
J. A. M. A.	= Journal of the American Medical Association.
J. H.	= Journal of Hygiene.
J. I. D.	= Journal of Infectious Diseases.
J. R. A. M. C.	= Journal of the Royal Army Medical Corps.
J. T. M.	= Journal of Tropical Medicine.
J. W. P.	= Jahresbericht of Waldeyer and Posner.
L.	= Lancet.

- L. G. B. = Report of Medical Officer, Local Government Board.
 M. M. W. = Münchener Medizinische Wochenschrift.
 N. = Nature.
 P. J. S. = Phillipine Journal of Science.
 S. C. I. = Annual Report of the Sanitary Commissioner with the Government of India.
 Z. H. = Zeitschrift für Hygiene.

Enteric fever.—¹Baumann in A. K. G. A. Volume XXIX, heft 2, page 372 ;
²Rimbaud and Rubinstein referenced by Rubner and Lange in J. W. P. for 1908, page 666 and by Fraenkel in H. R. XIX, 1909, page 1178 ;
³Laforge in *Compt. rend. Soc. de biol.* 1908, No. 26, referenced by Wolff-Eisner in C. B. *Referate*, 2nd March 1909, page 180 ; ⁴Trincas and Olla referenced by Bertarelli in C. B. *Referate*, as above, page 180 ; ⁵Proescher and Roddy in J. A. M. A. February 6th 1909, page 470 ;
⁶Konrich in *Klin. Jahrb.* Volume XIX, 1908, heft 3 ; ⁷Collin and Fortineau referenced by Kersten in C. B. *Referate*, Volume XLIII, 1909, page 185 ; ⁸Marx in C. B. *Originale*, Volume XLVIII, heft 1, page 29 ; ⁹Ruge and Rogge referenced in B. I. P. 15th January 1909, page 22 ; ¹⁰Savage and Gunson in J. H. Volume VIII, No. 5, page 601 ; ¹¹Fleischanderl in M. M. W. 1909, page 392 ;
¹²Pepere referenced by Negri in C. B. *Referate*, Volume XLIII, 1909, page 188 ; ¹³Drewes referenced by Wolf in C. B. *Referate*, Volume XLIII, page 183 ; ¹⁴Handson, Williams, and Klein in B. M. J. November 21st 1908, page 1547 ; ¹⁵Meinicke and Neuhaus referenced in H. R. XIX, page 1182 ;
¹⁶Babes and Feodorasco in C. R. Soc. Biologie, 30th April and 21st May 1909, pages 644 and 787, Wiens in M. M. W. 11th May 1909, page 962 ; ¹⁷Kolle and Hetsch, *Die experimentelle Bakteriologie und die Infektions Krankheiten*, 2nd Edition, 1908, page 223.

Bacteriological methods of diagnosis.—¹Kolle and Hetsch as above, page 194 ; ²Peabody in J. A. M. A. 1908, September 19th page 978 ; ³Bates, in J. A. M. A. April 3rd 1909, page 1093 ; ⁴Stühlern summarized in H. R. 18, 1908, page 1275 ; ⁵Bohne in Z. H. Volume LXI, page 213, summarized in H. R. XIX, 1909, page 713 ; ⁶Conradi in Z. H. Volume LXII, page 157 ; ⁷Busse in M. M. W. May 1908, page 1113, summarized in B. I. P. VII, 1909, page 281 ;
⁸Volk in the *Handbuch der Technik und methodik der Immunitätsforschung* of Kraus and Levaditi, Volume II, 1909, page 623 ; ⁹Kreissl in the same, page 690 ; ¹⁰Geisse in C. B. *Originale*, Volume XLVIII, heft 4, page 517 ; ¹¹See a case reported by Becker and Ruhland in J. A. M. A. January 2nd 1909, page 13 ; ¹²Gaetgens in D. M. W. 5th August 1909, page 1337 ; ¹³Conradi in M. M. W. 1908, page 1523 summarized in H. R. XIX, 1909, page 533, and in B. I. P. 15th April 1909, page 283 ; ¹⁴Kindborg in C. B. *Originale*, Volume XLVI, heft 6, page 554 ; ¹⁵Loeffler in D. M. W. 1907, page 1581 ; and in D. M. W. 29th July 1909, page 1297 ; ¹⁶Padlewsky in C. B. *Originale*, Volume XLVII, page 540 ;
¹⁷Hesse in Z. H. Volume LVIII, page 441. For a study of the comparative value of these media see an article by Grimm in H. R. XIX, 1909, page 814.

Epidemiology. Bacillus-carriers.—¹Frosch in *Klin. Jahrb.* Volume XIX, pages 536 to 554 ; ²J Koch in Z. H. Volume 62, 1909, page 1 ; Chiarolanza in the same page 11 ; ³Grimme in M. M. W. January 7th 1908, reported in J. A. M. A. February 8th, page 492 ; Dehler reported in H. R. XVIII, 1908, page

276; ⁴Memorandum published in June 1909, by the Director-General, Army Medical Service; ⁵ and ⁶Uhlenhuth, Hübener, Xylander and Bohtz in A. K. G. A. XXX, heft 2, April 1909, page 217; ⁷Kimpau in the same, page 330; ⁸Drewes as above.

Modes of spread.—¹L. of February 13th 1909, page 486; ²Lumsden in J. A. M. A. October 16th 1909, page 1258; ³Konrich in Z. H., Volume LX, 1908, page 208; ⁴Trask in J. A. M. A. October 31st 1908, page 1491; ⁵Harrington reported by Trask as above; ⁶Harrington in Boston Medical and Surgical Journal, July 2nd 1908, reported in J. A. M. A. July 18th 1908, page 255; ⁷Lumsden and Woodward in J. A. M. A. March 6th 1909, page 749; ⁸Kersten in A. K. G. A. Volume XXX, heft 2, 1909, page 341; ⁹See J. A. M. A. October 16th 1909, pages 1261 to 1264; ¹⁰Morgan and Harvey in J. R. A. M. C. June 1909, page 587; ¹¹Brückner in A. K. G. A. XXX, heft 3, page 619; ¹²Galvagno and Calderini in Z. H. Volume 61, heft 2, 1908, page 185; ¹³Ainsworth in J. R. A. M. C. May 1909, page 485; ¹⁴Howard reported by Welch, see J. A. M. A. October 16th 1909, page 1264.

Preventive measures.—¹Klinger in A. K. G. A. Volume XXX, heft 3, May 1909, page 584; ²Lancet, June 5th 1909, page 1602; J. R. A. M. C. XI, October 1908, page 327; J. R. A. M. C. XII, February 1909, pages 163 and 169; J. R. A. M. C. July 1909, page 62; Maynard in *Biometrika*, Volume VI, Part IV, March 1909, page 366.

SECTION III.

NATIVE ARMY OF INDIA.

30. The average strength of the Native troops, including those on duty in India, Appendices A and B to China and other stations outside India, was Section III, Tables XXVI and LIII. 126,975 as compared with 126,392 in 1907.

From the statement in the margin it will be seen that their statistics of health,

Native troops.	All causes. Ratios per mille.		
	1902-06.	1907.	1908.
Admissions	649.5	628.9	674.4
Constantly sick.	24.4	21.7	22.8
Deaths ...	8.93	6.27	7.41
Invalids ...	10.00	5.76	6.63

while being more favourable than those of European troops, were not quite so satisfactory as in 1907 when the rates of constantly sick, of invaliding, and of mortality were the lowest on record. The death rates shown in the table do not include the statistics of men who died while on sick leave or on furlough at their homes; if these were included the death rate for 1908 would be 8.49 per thousand instead of 7.41.

The increase in the rate of admission to hospital was due almost entirely to the greater prevalence of malaria, the admission rate from this disease being 266 per thousand as compared with 225 in 1907, but among the more important diseases the admission rates from dysentery, diarrhoea, enteric fever and cholera were also higher than in that year. On the other hand respiratory diseases, influenza, anæmia and debility, scurvy, Malta fever, and plague were considerably less prevalent, and from typhus fever there were only four admissions and two deaths in the year under review as compared with 24 and four, respectively, in 1907. The increased death rate was due chiefly to a higher mortality from cholera, enteric fever, and pneumonia, but the death rates from respiratory diseases and tubercle of the lungs were also higher than in 1907. Plague caused only 14 deaths as compared with 56 in that year, and malaria only 74 as compared with 84, but as regards the latter disease the removal of the heading "remittent fever" from the returns is doubtless the most important factor concerned in the reduction.

The chief causes of sickness were malaria, dysentery, respiratory diseases, pyrexia of uncertain origin, and venereal diseases, in order of their relative prevalence, malaria accounting for over 39 per cent. and dysentery for about 6 per cent. of the total number of admissions from all causes. The principal causes of death were pneumonia, cholera, malaria, enteric fever and tubercle of the lungs, these diseases accounting, respectively, for 29.7 per cent. 12.3 per cent. 7.9 per cent, 7.8 per cent, and 5.6 per cent of the total number of deaths from all causes.

The number of men invalided for discharge from the service was 842 as compared with 728 in 1907, mainly from tubercle of the lungs, injuries, debility, and malaria.

If table XXVI be compared with table I it will be seen that the Native troops suffered less than the European troops from pyrexia of uncertain origin, venereal diseases, enteric fever, diarrhoea, hepatic affections, and influenza, but that

they suffered more from each of the other causes of sickness tabulated. An interesting comparison is that dealing with the relative incidence among the two classes of troops of malaria and pyrexia of uncertain origin on the one hand and of dysentery and diarrhoea on the other. According to the statistics the Native troops suffer more than the European troops from malaria and dysentery, but less from pyrexia of uncertain origin and diarrhoea. An analysis of the statistics and case sheets indicates that the recorded contrast is due chiefly to differences of diagnosis, and that a proportion of the cases diagnosed as malaria and dysentery, respectively, in the Native army would if they occurred in the European army be diagnosed as pyrexia of uncertain origin and diarrhoea.

The statistics of Native troops located in stations outside India will be found in Tables XXVIII and XXIX and the following summary contains details not given in those tables. The average strength of the troops serving in North China was 863, the rate of admission to hospital was 450·8 per thousand and the death rate was only 2·32 per thousand. The good state of health of these troops is indicated by the fact that of the 389 admissions to hospital no fewer than 288 were for causes that are not considered sufficiently important to be tabulated separately in the standard tables. The average strength of the troops in Colombo and Singapore was 1,540, the admission rate was 613·6 per thousand and the death rate only 1·95. In the stations of the Aden Brigade (Aden, Khormaksar, and Perim) the average strength was 801, the admission rate was 619·2 per thousand and the death rate 6·24 ; and the corresponding figures for troops in stations on the Persian Gulf were 240, 629·2, and 37·50. The average annual strength of Native troops employed with the Bazaar Valley and Mohmand Field Forces, which have already been referred to in Section II, works out to 1,518, and the rates of admission to hospital and of mortality were 442·0 and 28·99 per thousand respectively. The number of men killed in action or who died from wounds received in action was 36. Wounds and injuries were the chief causes of admission to hospital and of mortality. There were twelve cases of cholera with five deaths.

31. From Appendix A to this Section it will be found that the sickness and mortality among the Native troops of the Northern and Southern Armies. Divisions, Appendix A. Table XXVI. Northern Army were much greater than among those of the Southern Army, the admission rate per thousand being higher by 197·9 and the death rate by 2·39. The higher admission rate in the Northern Army was due almost entirely to the prevalence of malaria and the higher death rate was due chiefly to the mortality from pneumonia and cholera. The relative incidence of different diseases on the Native and European troops of the two armies corresponded, except in regard to influenza, small-pox, respiratory diseases, pyrexia of uncertain origin, dysentery and diarrhoea. As regards the Divisions, the statistics of troops in the 1st (Peshawar) Division were the least favourable during 1908, the 2nd (Rawalpindi) Division standing next in the list, and the 7th (Meerut) Division third.

32. For the year under review as in the previous year the geographical areas numbered VII (North-West Frontier), and X (Western Coast) must be considered to have been most unhealthy for Native troops. Malaria and pneumonia were most prevalent in the North-West Frontier geographical group, tubercle of the lungs

in the Gangetic plain group and dysentery in the Burma Coast group. The highest death rates were recorded in groups XII (Hill Stations) where the mortality was due chiefly to pneumonia, and X (Western Coast) where it was due chiefly to malaria and pneumonia.

33. In 1908 there were 41 stations in which the average strength of Native Stations, Tables XXVIII to XXX. troops was over one thousand. The rates of admission to hospital were very high in five, namely, Dera Ismail Khan, Edwardesabad, Peshawar, Dehra Dun, and Kohat, and the death rates were high in Abbottabad, Dera Ismail Khan, Peshawar, Lahore Cantonment, and Sialkot. In Dera Ismail Khan the admission rate was 1,881.2 per thousand and the death rate 11.82, the chief cause of the large amount of sickness being malaria, which accounted for 59 per cent of the total admissions to hospital. In Edwardesabad the admission rate was 1,209.5 per thousand, in Peshawar it was 1,127.8, in Dehra Dun it was 1,080.6 and in Kohat 1,058.8, malaria being in all these stations the chief cause of the high rate. The highest death rate in any of the larger stations during the year was 18.56 per thousand recorded at Abbottabad, the chief causes of the mortality being cholera, pneumonia, and enteric fever. Abstracts of the cantonment sanitary reports upon 24 of the most unhealthy stations will be found in Table XXX, so it is unnecessary to refer to them in detail here. Among regiments with a record of much sickness and mortality during the year were the 1-6th Gurkhas at Abbottabad, the 86th Carnatic Infantry at Secunderabad, the 112th Infantry at Nasirabad, the 1-2nd Gurkhas at Drosh, and the 41st Dogras at Cawnpore. The admission rates in these regiments ranged between 420 and 1,040 per thousand, and the death rates between 21.46 and 33.16 per thousand.

34. Influenza was less prevalent among Native than among European troops, Influenza. Appendices B and G, and the rate of admission to hospital fell from Tables XXVI to XXIX and XXXI. 6.5 per thousand in 1907 to 3.8. Most cases occurred at Hong Kong, Secunderabad, Kirkee, Bakloh, and Nowshera. Among the Native troops as a whole January, February, and March were the months during which the disease was chiefly prevalent, and June was the month in which it was least prevalent.

35. In the Native army, as in the European, cholera was much more prevalent Cholera. Appendices A and B. than in the previous year, 174 cases with 116 Tables XXVI to XXIX and XXXII. deaths being reported compared with only 34 and 24 in that year. The disease was widespread among the general population of the country and as regards the Native troops the increased incidence is shown by the fact that a case or cases occurred in fifty regiments located in 29 stations as compared with thirteen regiments located in eleven stations in 1907. At Abbottabad there were 36 cases with 29 deaths, at Secunderabad 32 cases with 13 deaths, at Cawnpore 14 cases with eight deaths and at Nowshera eleven cases with ten deaths. Twelve cases with five deaths occurred among the Native troops of the Mohmand Field Force. The regiments with most cases were the 1-6th Gurkhas at Abbottabad in which there were nineteen, the 86th Carnatic Infantry at Secunderabad in which there were eighteen and the 41st Dogras at Cawnpore in which there were fourteen. The outbreak at Abbottabad was investigated by the Sanitary Officer of the Rawalpindi Division. Apparently some of the

patients became infected in a brothel situated just outside cantonment limits, but the most interesting feature of the outbreak was the large proportion of attacks among persons who came in contact with cholera patients in hospital. There were eleven cases among such persons, namely, hospital cook one, sweepers two, soldier patients five, soldier nursing attendants two, women segregated in the hospital compound one. The Sanitary Officer found that in the hospitals of the Gurkha regiments the arrangements in connexion with the water supply and with the removal and disposal of patients' excreta were very unsatisfactory.

36. There were 103 admissions to hospital on account of small-pox during 1908 as compared with 48 during 1907, but the number of deaths from the disease was only three as compared with five. The rate of mortality per thousand of strength was lower than the rate for European troops. For a number of years it has been the rule that the statistics of this disease among Native troops compare favourably with the statistics among European troops. Prior to 1886 the reverse was invariably the case, and the change indicates that of late years vaccination and revaccination have been more thoroughly attended to in the Native than in the European army. Small-pox is usually a very fatal disease among natives of India, but that vaccination and revaccination have conferred upon the Native troops a remarkable protection from death from this disease is shown by the fact that only 30 out of the 695 cases that have occurred among them during the last ten years were fatal. These figures give a case-mortality of only 4·3 per cent which is only about one-fourteenth that of cholera and about one-fifth that of pneumonia.

During 1908 a case or cases of small-pox occurred in 40 regiments, but there was only one case in 19 regiments and there were only two in ten. The largest numbers in any regiment were sixteen in the 73rd Carnatic Infantry and fifteen in the 79th Carnatic Infantry both at Aurangabad. But there was no death from the disease in either of these regiments and it is said that on account of previous vaccination the cases were of a remarkably mild type. On the other hand ten cases that occurred among unvaccinated women and children of one of these regiments were very severe and four of the ten were fatal.

37. Malaria accounted for over 39 per cent. of the total number of admissions from all causes and the admission rate per thousand was 266 as compared with 225 in 1907. The increase was chiefly among troops of the Northern Army, but the admission rates recorded in all except two of the twelve geographical groups were higher than in 1907, the two exceptions being Burma Coast (I) and Bengal and Orissa (IV). For the whole Native Army the months of greatest prevalence were, as usual, October and November. In stations where the average strength was over 150 those at which the highest admission rates were recorded were Chakdara (1,546 per thousand), Dargai (1,159), Dera Ismail Khan (1,112), Jandola (1,033), Simla (868), Baroda (702), Peshawar (647), Dehra Dun (620), Dibrugarh (612) and Delhi (601). In five other stations the admission rate was over 500 per thousand of strength and in seven more it was over 400. The high admission rate among the troops at Dargai appears to have been due to residence not at Dargai, but at Chakdara, where despite careful arrangements for administering quinine prophylactically and efforts to destroy larvæ and adult mosquitoes, malaria was exceedingly prevalent in the 82nd Punjabis. On account

Small-pox. Appendices A and B. Tables XXVI to XXIX.

Malaria. Appendices A, B, and C. Tables XXVI to XXIX and XXXIV to XXXVI.

of the severity of the outbreak all the recruits of the regiment were sent to Dargai early in October. Dera Ismail Khan was garrisoned by the 29th Mountain Battery, the 16th Cavalry, the 20th Infantry, the 69th Punjabis, the 47th Sikh Infantry, and a wing of the 27th Punjabis, the average annual strength of the Native troops being 2,475. The 29th Mountain Battery, the 16th Cavalry, and the 47th Sikhs suffered most. It is said that the river overflowed its banks and that large areas of water existed within a short distance of the cantonment. Anti-mosquito operations and the administration of quinine prophylactically were carried out. The high admission rate at Simla was due to the arrival there in October of the 34th Pioneers from Lahore Cantonment where the regiment became very heavily infected with malaria. For the three months from October to December the annual admission rate from the disease in this regiment was 2,227 per thousand and the death rate 25·21 per thousand. In another regiment, the 32nd Pioneers, which arrived about the same time from Ambala, the annual admission rate from malaria for the three months was only 230 per thousand.

The following table is of interest in connexion with the remarks upon malaria that were made in the section relating to the European army.

Malaria in the Native army. Quinquennial admission rates per 1,000 of strength.

1879—1883	1884—1888	1889—1893	1894—1898	1899—1903	1904—1908
652·	451·	467·	341·	305·	228·

Unfortunately the practice of treating Native soldiers suffering from malaria as out-patients prevails to so great an extent and varies so greatly in different years and in the practice of different medical officers that very little, if any, importance can be attached to these figures. The statistics of Native soldiers treated as out-patients are not shown in any published return and there is evidence that in recent years the introduction of special anti-malarial measures has sometimes been followed by the use of the out-patient system of treatment to an extent that makes the recorded rates of admission to hospital quite valueless as an indication of the amount of malaria among the Native troops.

38. Under the heading "Pyrexia of uncertain origin," which appears for the first time in the returns for 1908, there were recorded 2,056 admissions to hospital and eleven deaths. To a great extent the heading has been used as a substitute for the heading "simple continued fever," which no longer appears in the returns, but a number of severe illnesses, having fever as a prominent symptom in which the diagnosis was obscure, were also included under it. The Sanitary Officer of the Rawalpindi Division investigated the cause of fevers of undetermined origin among the Gurkha troops and followers at Abbottabad. He considered that some of the cases that occurred from March to May among musicians and followers of the 1-5th Gurkhas were probably typhus fever and that most of the undeter-

Pyrexia of uncertain origin.

Appendix B. Tables XXVI to XXIX and XXXIV.

mined fevers of long duration were typhoid or paratyphoid fever. The fevers of short duration were difficult to diagnose but he thought that some of them were influenza and others mild cases of malaria. He was of opinion that the more general employment of all the diagnostic methods at present available would show that no hitherto unknown disease is included among the "fevers" at Abbottabad. This remark, however, is not applicable generally for an examination of the case sheets of the eleven fatal cases recorded under the heading during 1908 shows that in some instances the diagnosis remained obscure although no known diagnostic method was left untried.

39. There were nine cases diagnosed as kala-azar during the year as compared with twelve in 1907. They occurred in the following regiments and stations: six in the 2-2nd Gurkha Rifles at Dehra Dun, one in the 1-2nd Gurkhas at Kila Drosh, one in the 2-5th Gurkhas at Abbottabad and one in the 2-9th Gurkhas at Dehra Dun. Four of the cases were fatal during the year. The diagnosis was confirmed by finding the Leishman-Donovan parasites in blood obtained by splenic or hepatic puncture or in smears from the spleen after death. The medical officer of one of the regiments at Dehra Dun considered that the prevalence of the disease in that station is increasing.

40. In 1908 only four admissions and two deaths from typhus fever were recorded among Native troops as compared with 24 admissions and four deaths in 1907. The cases occurred in the 17th Cavalry at Bannu, the 57th Rifles and the 59th Scinde Rifles at Peshawar and the 5th Mountain Battery at Quetta. It has already been mentioned that the disease may also have been present at Abbottabad. Relapsing fever which had caused 26 admissions and three deaths in 1907 caused only two admissions and one death in 1908. The cases occurred in the 110th Mahratta Light Infantry at Ahmednagar and the 1st Lancers at Lucknow.

41. The table in the margin shows the noteworthy increase that has occurred in the number of cases diagnosed as enteric fever in the Native army during recent years. It is coincident with a yearly decline in the number of cases recorded under the heading remittent fever, and the unusually large increase in 1908 is perhaps due to the removal of that heading from the list of diseases in the annual returns. Since the beginning of 1908, the possible headings for the return of a case in which fever of long duration is the only prominent symptom, have been malaria, enteric fever, Malta fever, and pyrexia of uncertain origin, and, having regard to the much greater care that is now adopted before returning a case as malaria, as well as to the more general employment of the serum tests in diagnosis, and to the omission of the previously much used heading remittent fever a marked increase in the admissions recorded under the heading enteric fever, was to be expected. (See this report for 1904, page 44.) The probability that altered diagnosis rather than a real extension of prevalence

Enteric fever. Native troops.		
Years.	Total admissions.	Admission rate per 1,000
1902	50	·4
1903	80	·6
1904	70	·6
1905	130	1·1
1906	127	1·0
1907	182	1·4
1908	350	2·8

is the cause of the recorded increase is supported by the results of a more detailed examination of the statistics. Such an examination shows that the comparatively large number of cases is due, not to the appearance of the disease in epidemic form in particular regiments, but to the occurrence of from one to three cases in a much larger number of regiments than in former years. Thus the 350 attacks recorded in 1908 comprised cases from no fewer than 113 regiments of which there were 52 in which only one case occurred, eighteen in which two cases occurred, thirteen in which three cases occurred and nine in which four cases occurred, so we are left with only 21 regiments in which more than this number occurred during the year. It is found also that, in the regiments in which a considerable number of cases were reported, as in the 1-9th and 2-9th Gurkha Rifles in which there were 24 and 18 respectively, the incidence of the cases was such as to negative the view that the disease was present in epidemic form. An investigation of the disease in Dehra Dun, where those regiments were stationed, was made by the Sanitary Officer of the Meerut Division, who reported that nearly 49 per cent. of the patients had contracted the disease by casual infection from different sources and at different times outside the cantonment, and that, of the remainder, probably a considerable number had become infected in Rajpur. The source of infection was not definitely ascertained in any case that occurred among Native troops during the year and this is not surprising when we know that the great majority were diagnosed on their admission to hospital as malaria and that usually 10 days or a fortnight elapsed before the diagnosis of enteric fever was made by the ineffectiveness of quinine in treatment and by the results of a serum test. It will probably be some years before what may be called the normal incidence of enteric fever among Native troops is accurately reported and until then it would be wrong to consider that the real prevalence of the disease is increasing among them.

42. From the statement in the margin it will be seen that after a considerable increase in the number of cases of Malta fever among Native troops there has been a fall to 23

cases in 1908. Of these eleven occurred in Ambala, two in Lahore Cantonment, two in Sehore and one in each of the following stations: Sialkot, Rawalpindi, Dera Ismail Khan, Multan, Jhansi, Drosh, Chitral and Fort Lockhart. The largest number of cases in any regiment was seven in the 32nd Sikh Pioneers at Ambala. All the patients in this regiment gave a history of having drunk goat's milk, but although many goats in an adjacent village were examined none was found to be infected. An order was issued prohibiting the bringing of female goats to the lines, and it is said that after the issue of this order only one doubtful case of Malta fever occurred.

Malta fever. Native troops.		
Years.	Total admissions.	Total deaths.
1902	4	...
1903	8	...
1904	5	1
1905	43	1
1906	38	1
1907	62	2
1908	23	...

43. Coincident with a great decrease of plague among the general population of India in 1908 the number of cases among Native troops fell from 85 in 1907 to 36, and the number of deaths from 56 to 14. Of the cases, fifteen with five deaths occurred at Poona and ten with six deaths at Bangalore. The 26th Light Cavalry, the 80th Carnatic Infantry and the 20th Deccan Horse were the regiments affected

Malta fever. Tables XXVI to XXIX.

Plague. Tables XXIV to XXIX.

at those stations. The remaining cases occurred in 10 different regiments located in 8 stations.

44. The total number of admissions to hospital on account of scurvy during 1908 was 191 which gives a ratio of 1·5 per thousand as compared with a ratio of 2·3 per thousand in the previous year. About 58 per cent. of the admissions in 1908 were recorded among troops in the Southern Army and about 39 per cent. among troops in the Northern Army; and as regards geographical groups over 25 per cent. of the admissions occurred among troops in group XII (Hill stations) and about 21 per cent. among troops in group VIII (North-West Frontier). The largest numbers of cases were recorded in the 126th Baluch Infantry (18 admissions) and the 112th Infantry (14 admissions). The head-quarters of the 126th Baluch Infantry was at Quetta, but 17 of the cases of scurvy occurred among men of the detachment at Robat where the only vegetables available were onions, and even these were not obtained during June. Thirteen of the cases occurred during July. The 112th Infantry were stationed at Nasirabad, but they provided detachments for stations on the Persian Gulf where the cases of scurvy occurred.

45. The admission rate on account of tubercle of the lungs rose from 2·5 per thousand in 1907 to 3·0 and the death rate from ·33 to ·42, the total number of admissions and deaths being 322 and 42 in 1907, and 378 and 53 in 1908. Among Gurkhas there were 77 cases and 22 deaths as compared with 62 cases and 14 deaths in the previous year, the admission and death rates among this class of the Native troops being 5·0 and 1·43 per thousand, respectively, as compared with 2·7 and ·28 among the rest of the Native army. But the statement in the margin shows

TUBERCLE OF THE LUNGS AMONG GURKHAS. RATIOS PER THOUSAND.		
Years.	Admissions.	Deaths.
1899	15·4	5·09
1900	14·4	4·34
1901	13·1	3·95
1902	15·6	4·24
1903	28·9	2·88
1904	10·6	2·66
1905	6·1	1·58
1906	5·2	2·41
1907	4·8	1·03
1908	5·0	1·43

the noteworthy decline in the prevalence of and mortality from the disease that has occurred among Gurkha troops during the last four years. Next to Gurkhas, the Dogras in the Native army suffer most from tubercle of the lungs and in 1908 the largest number of admissions in any regiment occurred in the 41st Dogras who were stationed during 1907 and part of 1908 at Shan-hai-kwan, Tongshan and Tientsin in North China. Among regiments stationed in India the largest numbers of admissions were recorded in the 1-7th Gurkha Rifles at Quetta (14), the Queen's Own Corps of Guides at Mardan (10), and the 2-1st Gurkha Rifles at Dharmasala (8). Frequent inspections for the discovery and invaliding of early cases of tubercle as well as improved arrangements for the ventilation of barracks have doubtless been important factors in reducing the prevalence of the disease in Gurkha regiments.

46. The admission rate on account of pneumonia was 12·8 per thousand and the death rate 2·20 as compared with rates of 12·4 and 1·99 per thousand, respectively, in 1907. The disease was more prevalent than in the previous year in nine of the twelve geographical groups the highest admission rates for

the year being recorded in the North-West Frontier group (21·3 per thousand) and the Hill Stations group (15·5). The months of greatest prevalence were, as usual, January, February, March, November and December. Among stations where the average strength was over 100 the highest admission rates were recorded in Kherwara (93·5 per thousand), Jacobabad (45·9), Fort Sandeman (44·5) and Amritsar (41·3), and as regards regiments the highest rates were recorded in the 20th Infantry at Dera Ismail Khan, the Queen's Own Corps of Guides at Mardan, and the 52nd Sikhs at the Malakand. In the Frontier stations, where the winter is severe, the custom of visiting the latrines in the early morning without wearing sufficient clothing to protect against a chill is stated to be a common cause of pneumonia.

47. Dysentery was more prevalent than in 1907, but the number of deaths was

Dysentery and diarrhoea. Appendices A, B, and C. Tables XXVI to XXIX and XXXVII to XXXVIII.

nearly the same. The disease was most prevalent at Jandola, Barrackpore, Santa Cruz, Singapore and Allahabad. The medical officer of the 2nd Rajput Light Infantry in which most cases occurred thought that the disease was due to inferior food stuffs purchased in bazaars. It was next most prevalent in the 99th Deccan Infantry at Singapore where the medical officer reported that the climate and the condition of the barracks and their surroundings were very unfavourable to the health of the troops. He stated that the barracks were condemned eight years ago, and that they are surrounded by swamps, insanitary houses and highly manured fields.

There were in all 1,115 admissions to hospital and eight deaths from diarrhoea as compared with 859 and two in 1907. The regiments in which most cases occurred were the 2-7th Gurkha Rifles, the 113th Infantry, and the 129th Baluchis. Chills and indiscretions in diet were regarded as the important causes.

48. The statement in the margin shows that while the admission rates from

Venereal diseases. Appendices B and F. Tables XXVI to XXIX.

Years.	VENEREAL DISEASES, ADMISSION RATES PER 1,000.	
	Native Troops.	European Troops.
1903	24·5	247·0
1904	20·6	198·5
1905	19·6	153·7
1906	16·2	117·3
1907	14·7	89·9
1908	15·2	69·6

the decrease among Native troops has not been nearly so marked as among European troops. It shows also the great difference that exists between the recorded prevalence of the diseases among the two classes of troops. During 1908, among European troops with an annual average strength of 68,933 there were 4,801 admissions from venereal diseases while among Native troops with an annual average strength of 126,975, there were only 1,934 admissions. The slight increase in the admission rate among Native troops in 1908, as compared with the rate in 1907, was confined to troops of the Southern Army, and among those troops the diseases were, as usual, more prevalent than among troops of the Northern Army, the admission rates being, respectively, 20·1 and 12·8 per thousand. The prevalence of venereal diseases among Gurkha troops continues to diminish and in 1908

the admission rate among them was only 18 per thousand as compared with 15 per thousand among the remainder of the troops. Excluding stations at which the average strength was less than 100, the highest admission rates among Native troops in the Northern Army were recorded at Almora, Kohima, Simla, Dehra Dun, Fort William and Mardan, and among troops of the Southern Army at Cannanore, Bombay, Belgaum, Poona and Jacobabad. Among all the Native troops in India the admission rate for syphilis was 4·9 per thousand, for soft chancre it was 4·3 and for gonorrhœa it was 6·0 as compared, respectively, with the figures 4·9, 4·3 and 5·8 in 1907.

49. There were thirteen admissions to hospital and there was no death from beri beri during 1908, the figures, as usual, comparing favourably with those for European troops. Ten of the cases occurred in the 83rd Light Infantry stationed at Cannanore and one case in each of the following regiments—the 79th Carnatic Infantry at Aurangabad, the 93rd Burma Infantry at Mandalay and the 98th Infantry at Colombo. In the 83rd Infantry the disease was of a mild type and was confined to recruits. No case was reported among the civil population of the district and, beyond suggesting that the consumption of bad rice may have been concerned, the medical officer was unable to account for the outbreak.

50. During the ten years 1898 to 1907, there were altogether 119 cases of suicide in the Native army, a mean of about twelve per annum. There were only seven in 1908, of which five were by gunshot and two by hanging.

SECTION IV.

JAILS OF INDIA.

51. The condition of the people of India is dominated by the rainfall ; and any
India. considerable departure from the normal
either in amount or distribution generally

sets in motion a train of consequences ending in poverty, sickness and death. The health of the prisoners must always be influenced to some extent by the condition of the people, owing to the continuous flow into the jails of large numbers of the poorest and lowest classes. In ordinary years the effect of this influx is not perceptible, the numbers are not in excess of the accommodation provided, the proportion of sick persons among the newly admitted prisoners is small and the figures relating to them are lost in the general statistics, while the precautions against the introduction of infectious diseases into the jails rarely fail. In extraordinarily unfavourable years, however, the position is profoundly changed, the number of prisoners is so greatly increased that many of the jails are overcrowded, the proportion of sick among the newly admitted is so large that the general statistics are modified, and so severe is the constant strain on the precautions against the importation of infection, that they occasionally break down.

In 1908 all the conditions influencing the health of the prisoners were extraordinarily unfavourable. The south-west monsoon of 1907 receded prematurely, and in consequence the spring crops of 1908 were bad everywhere, excepting in Eastern Bengal and Assam and in Lower Burma, and, although the autumn crops were generally good, except in Bengal, the epidemic of malarial fever which ravaged Upper India delayed the harvest. Poor and belated harvests raised the already high prices ; high prices led to an increase of crime, and the number of prisoners admitted into the prisons rose from 291,165 in the preceding year to 341,831, a total increase equal to 17 per cent. The increase was not, however, equally distributed ; it was 50 per cent in the Central Provinces, 28 per cent in Bengal and the Punjab and 26 per cent in the United Provinces, all administrations in which tubercle, or diseases of the lungs, or both, levied a higher toll of deaths than usual. Not only were many of the prisons continuously overcrowded, but, as we shall see, a large proportion of the newly admitted prisoners were in a bad state of health owing to the effects of scarcity and malarial infection.

The rainfall of 1908 was abnormal : in the cold weather it was in excess, but irregularly distributed, in the hot weather it was in defect, except in Upper India, Berar and Mysore, and during the monsoon period although in defect in the eastern parts of Upper India, it was in enormous excess over north-western India. In every province, except Eastern Bengal and Assam and Bombay, the general mortality was greater than usual, the increase in the death rates being specially noticeable in Upper India, where the mortality of the previous quinquennium, with which comparison is made, was greatly enhanced by plague, which was happily not a serious factor in the death rates of 1908.

It is highly creditable to those concerned with the administration and management of the prisons that, in spite of all those adverse conditions, the health of the prisoners remained fairly good ; the admission and constantly sick

rates were only slightly higher than the low rates to which we have been accustomed in recent years, and, although the death rate (24·17 per 1,000) represents more than a check in the steady fall that has been taking place, it would have been considered a low rate ten years ago.

52. Comparisons are frequently made between death rates of prisoners and of the general population, and such comparisons may be useful and instructive if sufficient allowance is made for the very different circumstances of the two communities. Prisoners labour under certain disadvantages, but these are much more than balanced by advantages. Prisoners are below the average of the general population in general vitality, they are exposed to the depressing influences of jail life and to a certain monotony of routine and diet, and they live together in large numbers, so that if an infectious disease does become established among them the consequences may be serious. On the other hand, save that the proportion of females, who everywhere (except in the Punjab) die at a lower rate than males, is small, the constitution of the prison population is favourable to a low death rate; there are no children, the majority of prisoners are in the prime of life and the number of very aged among them is usually small. Prisoners are well housed and clad and abundantly fed, they are watchfully cared for in health and skilfully tended in sickness. It is obvious, then, that the death rate among them ought to be lower than that of the general population. It is, perhaps, not so obvious that measures that are successful in preventing or curing a particular disease among prisoners, may not be equally successful among the general population. Among prisoners such measures can be efficiently carried out in every detail, and they are aided by all the conditions of good hygiene; among the general population some conditions, including perhaps one that is essential to success, may be absent, while other factors that favour the disease may be present.

The mean daily prison population, including the convicts at the Andamans, was 115,403 or 7,728 more than in 1907, and the death rate was 24·47 per thousand. The figures regarding the 14,067 convicts at the Andamans are excluded from the general statistics discussed in the following paragraphs because the circumstances of their lives differ widely from those of prisoners in the jails.

In India and Burma the mean daily prison population in 1908 was 101,336, compared with 93,264 in the previous year. In every thousand, 646 were admitted to hospital during the year and 29 were constantly on the sick list, compared with 624 and 27 in 1907. The death rate, which in the previous five years ranged from 19·50 in 1903 to 17·61 in 1904, rose to 24·17, or 6·45 per thousand more than in 1907.

Every administration except Bombay and the North-West Frontier Province shared in the increased mortality, the most striking advances in the death rate compared with 1907 being from 16·94 to 31·61 per thousand in Bengal, 18·79 to 29·80 in Madras, and 15·03 to 24·09 in the United Provinces.

The average daily number of convicted prisoners in confinement was 94,262, and among them the death rate was 24·32 per thousand, ranging from 31·96 in Eastern Bengal and Assam to 13·09 in Burma, the rates being under 20 per thousand only in Burma, the North-West Frontier Province and Bombay.

53. Among the appendices (page XVI) will be found two statements F and G, in which the distribution and mortality of prisoners in central and district jails during the last five years are analysed. It will be observed that in India as a whole the number of prisoners in central and district jails are nearly equal, although in the separate provinces this is not generally the case. As usual the mortality in the central jails was lower than in the district jails, and, as was to be expected in a peculiarly unhealthy year, the death rate (33·61) among prisoners recently admitted into district jails was exceptionally high. The next highest rate, 31·31, occurred among prisoners in central jails who had been in confinement between 3 and 7 years; nearly one-third of the deaths among them was due to tubercle of the lungs.

54. The diseases which caused the highest rates of admission to hospital were malaria (197·7 per 1,000), dysentery (76·9), abscesses, ulcers and boils (65·2) and diarrhœa (37·6); and those which caused the highest death rates were dysentery (4·67 per 1,000), tubercle of the lungs (3·76) and pneumonia (3·24).

55. Malarial fevers, although they are the commonest of the diseases and cause a great deal of suffering and loss of labour, are very seldom the direct cause of death in prison. In 1908 there were 20,039 cases of malarial fever admitted into the jail hospitals and only 105 terminated fatally. Assuming that all the recorded deaths were due to malaria and malaria only, which the records show was by no means the case, only one attack in 191 ended in death, which proves that even in a year when malaria is peculiarly severe, malarial diseases when efficiently treated—using the term in its fullest sense—are by no means fatal.

The mean admission rate in India and Burma was 197·7 per thousand, compared with 191·3 in 1907, and the death rate 1·04 compared with ·94.

The numbers of cases of malaria occurring in the jails have been steadily falling in recent years. The fall is well shown by a comparison of a series of admission rates: in the five years ending with 1893, the mean admission rate on account of malaria was 393 per thousand, in the following five years it had fallen to 320, and in the next five years to 277; in the five years ending with 1908 the rate was 199 per thousand. This is, of course, highly satisfactory, and the questions arise, “To what is the reduction in the number of malarial infections due?” and “Is the decline likely to continue?” Before endeavouring to reply to these questions we must assure ourselves that the decline is a real one, for it is obvious that changes in nomenclature and greater precision in diagnosis might be responsible for an apparent improvement. The test is, of course, the general admission rates; if we find that they have declined along with and in proportion to the admission rates on account of malaria, we may safely conclude that the incidence of malaria has been reduced. The jail statistics stand the test; the general admission rates in the four quinquennial periods were, respectively, 1028·8, 981·1, 825·7 and 650·0. In the earlier years some reduction in the number of cases returned as malaria was, no doubt, due to more careful or more scientific diagnosis, but this cause has not been effective in recent years, and although the records of fatal cases show that more care in diagnosis, particularly in the smaller jails of some provinces, is required, they also point to the probability that there are quite as many cases of other diseases erroneously ascribed to malaria, as there are cases of malaria registered under other headings.

It is now a good many years since specific anti-malarial measures—the destruction of mosquitoes and the prophylactic use of quinine, have been in general use in the jails.

Prophylaxis.

Measures directed against mosquitoes, such as the removal of under-growth, drainage, the application of kerosine oil to bodies of water, the introduction of fish into tanks, etc., although certainly useful, can obviously be employed only within the area over which the superintendent has, or can obtain control, and their value is therefore at the best limited, while at the worst, when the country is flooded, when anopheles are breeding in every pool, and a large proportion of the people are infected with malaria, their value must be much reduced. Quinine prophylaxis is, however, always available, and its use is not affected by external circumstances, indeed, it is evidently just when these circumstances are most unfavourable that quinine becomes most useful. In the autumn of 1908, over a great part of Upper India the conditions in most places were such that limited measures against mosquitoes can have had but small effect, and such results as were obtained in the struggle with malaria were generally due to quinine prophylaxis. The history of the malarious autumn of 1908 in the United Provinces, the Punjab and the North-West Frontier Province is therefore of peculiar interest and importance.

In the United Provinces the epidemic of fever began towards the end of August and prevailed with extraordinary severity until the end of the year. "Quinine was given in most jails to all prisoners with spleen or who had suffered from fever on admission or in jail." The general admission rate among the prisoners rose from 201·0 to 281·3 per thousand, the smallness of the increase being, according to the Inspector-General, "probably owing to quinine being given more systematically." The statistics of the individual jails show that the admission rates for malaria varied enormously, from 1,203·6 in the third class district jail at Muzaffarnagar to 8·3 in the central jail at Lucknow. In the central jail at Lucknow there were only 14 admissions on account of malaria and the general admission rate 140·0 was less than one-fifth of the provincial mean, while Lucknow district and Lucknow town suffered severely from malaria. The 14 cases admitted represent only the severer cases of malarial infection, slight cases were not admitted to hospital, but no special anti-malarial measures appear to have been in force in the jail and there was no prophylactic issue of quinine. The jail is well situated at a distance of about three miles from the city and the Superintendent attributes the exemption from malaria to the general excellence of hygienic conditions.

Two "usually very unhealthy jails," at Gorakhpur and Saharanpur were selected for a special experiment in quinine prophylaxis, the drug being given in weekly doses of 15 grains to males and 10 grains to females from the 30th August to the end of the year. The results were considered satisfactory—the cases of malaria were fewer and milder than in the previous year, dysentery was less prevalent, and the general health of the prisoners, judged by their appearance and by the reduction in the death rate, was improved.

In the Punjab an experiment on a great scale was undertaken under the personal direction of the Inspector-General, Lieutenant-Colonel Braide, who spared no trouble to ensure that it should be carried out thoroughly. During the four autumn months, August to November, each new prisoner was given ten grains of quinine at the time of his admission to jail, and every prisoner was given 15 grains once a week.

The effects were very remarkable. The autumn was the most malarious in the history of the Punjab, the general fever death rate rising from 20·16 per

thousand in the preceding year to 34·66; in jails the admission rate on account of malaria *and* "pyrexia of uncertain origin" fell from 234·5 per thousand in 1907 to 173·5—a rate far lower than any previously recorded in the history of the Punjab jails. That this result was not contrived by classifying doubtful cases under headings other than malaria becomes evident when the total admission rates are examined; these rates fell from 890·5 per thousand, the mean of the five years ending with 1906, and 706·8 in 1907, to 581·2 in 1908. There was, it is true, a serious increase in the death rate, which rose from 19·81 per thousand in 1907 to 23·49 in 1908, but this increase was due to dysentery and tubercle of the lungs.

In the North-West Frontier Province in 1908 the fever death rate among the general population was less than in the previous year, but the details of the statistics show that fever was exceedingly prevalent in the autumn, especially in the Peshawar district, and that the mortality from it in the towns was exceptionally high. In this province experiments in quinine prophylaxis were carried out in two jails at Peshawar and Dera Ismail Khan. The experiments in both jails were on the same principle, three similar gangs of men were selected, to one gang no quinine was given, to the second gang five grains of quinine were given daily, and to the third gang 15 grains of quinine were given every fifth and sixth day. Very curious results were obtained. We may consider the experiment at Peshawar first, because fever was certainly more severe there than at Dera Ismail Khan. The three gangs consisted of 53 men each. To the men of A gang no quinine was given, and there were 25 admissions on account of malaria. To the men of B gang 5 grains of quinine were given daily, and there were 49 admissions on account of malaria. To the men of C gang 15 grains of quinine were given on every 5th and 6th day, and there were 53 admissions on account of malaria. The account of the experiment is too imperfect to permit of criticism or of any attempt at an explanation of the surprising fact that in this jail the effect of giving quinine in ample doses was to produce attacks of malarial fever, but it is obvious that the value of the experiment depends upon there having been no change in the personnel of the gangs—a matter difficult to arrange in a district jail. It may be noted that among the police, whose lines adjoin the Peshawar jail, the percentage of admissions from fever was four times as great as it was among the prisoners. The Inspector-General is "not, however, inclined to attribute the comparative immunity of the prisoners in the Peshawar jail entirely to the prophylactic use of quinine". He points out that, while the prisoners sleep in airy barracks which afford no cover for mosquitoes, "the rooms occupied by the policemen are swarming with these insects".

At Dera Ismail Khan a fourth gang averaging 147 men who had been admitted to prison after the 16th July, were given 15 grains of quinine every 5th and 6th day. The experiment may be most simply represented in a table.

	Gang A. (no quinine).	Gang B. (5 grains quinine daily).	Gang C. (15 grains of quinine every 5th and 6th day).	Gang X. (15 grains of quinine every 5th and 6th day).
Daily average strength	56	56	56	147
Total admissions on account of malaria ...	22	4	6	29
Daily average sick from malaria ...	1·32	·43	·09	·77
Percentage sick on account of malaria ...	39·3	7·1	10·7	19·0

It appears from the evidence, whatever the value of measures taken against mosquitoes—whether to prevent their breeding or to prevent their biting—that in a very malarious year in prisons, the administration of quinine is for the present the remedy upon which reliance must be placed. Judging by the success attained in the Punjab, and generally elsewhere when special efforts were made to carry out the administration of quinine in a thorough manner, there is reason to hope that, as the prophylactic use of quinine becomes more widely adopted, the decline in the frequency of malarial infections will continue.

In discussing in 1906, preventive measures against malaria, it was suggested that the Inspector-General in each province “should lay down for each jail in his administration exactly what measures are to be carried out, the dates between which these measures are to remain in force and the precautions to be observed to guard against failure.” In many quarters this seems to have been held to suggest that the Inspector-General should, without reference to the Superintendent, order indiscriminate dosing with quinine. This was not the intention, as indeed the context clearly shows. It was intended that the circumstances of each jail should be carefully considered and the means necessary and likely to be effective in preventing malaria adopted with reference to these circumstances. This can be done only by the Inspector-General who has better means of becoming acquainted with the past history and present needs of the jails under his administration than even the Superintendents. The Superintendents would of course be consulted, and it is not likely that the opinion of an experienced Superintendent would ever be disregarded.

56. In 1907 dysentery was less common and less fatal than in any previous year; in 1908 the cases were very numerous and exceedingly severe. The number of cases rose from 6,328 in 1907 to 7,796, and the number of deaths from 240 to 473. In the earlier months of the year dysentery was rather less prevalent than usual, and it was not until July that the numbers of admissions became very large. From August until the end of the year the numbers of cases were exceptionally large and this was especially noticeable in Bengal, the United Provinces and Punjab. The disease was much more fatal than usual—the case-mortality was twice as high as in 1907; and although the admission rate rose only from 67·9 per 1,000 in 1907 to 76·9 in 1908, the death rate rose from 2·57 to 4·67, the rates in the provinces ranging from 8·54 in Bengal to ·88 in Bombay and ·74 in the North-West Frontier Province. Of the 473 prisoners who died of dysentery during the year, no less than 253, or nearly fifty-three per cent, had been less than six months in prison.

57. The admission and death rates from diarrhoea also were higher than in the previous year, the former rising from 34·4 to 37·6 per thousand, and the latter from ·80 to ·94. It is noteworthy that in Madras, where the death rates from cholera (7·05) and dysentery (7·05) were exceptionally high, only 74 cases were recorded as due to diarrhoea and there was no death.

58. Until recently dysentery was invariably the most common cause of death in the jails, but in 1904 the death rate from dysentery was lower than the death rate from tubercle of the lungs. This change in the relative positions of the death rates was due to a decrease in the number of fatal cases of dysentery. In the following year the

death rate from dysentery was again lower than the death-rate from tubercle, and this occurred again in 1907, but in 1906 and in 1908 the death rates from dysentery were the higher. In respect of prevalence among prisoners the two diseases are related to each other—that is to say, in any year in which dysentery is exceptionally prevalent in the prisons, tubercle of the lungs will be found to be exceptionally prevalent also, and in years when the numbers of cases of dysentery are comparatively small, tubercle of the lungs is also less common than usual. While, however, there has been a distinct diminution during the last decade in the prevalence and fatality of dysentery, preventive and curative measures have been less successful in the case of tubercle of the lungs.

The opinion is widely held and evidence has been brought forward to prove that tubercular disease, particularly tubercle of the lungs, is increasing in India, especially in the towns. The jail population is mainly composed of persons who have led an outdoor life before their incarceration, but it might be expected that any rapid increase in the prevalence of the disease in the country generally would be reflected in the jail statistics. In the review of these statistics in 1904, it was shown that, whatever might be the case in particular jails, there was no reason to think that tubercle was on the increase among the whole body of prisoners. If we examine the statistics for the ten years 1898—1907 we find that the general admission rate on account of tubercle of the lungs has fluctuated within very narrow limits. In 1898 the admission rate was 7·9 per 1,000, the rates then rose steadily to a maximum of 9·1 in 1901 (when the prison population was affected by the effects of the famine of the previous year), after which the admission rates fell steadily to the minimum of the ten years' period, 7·5 in 1907. The death rates followed a similar course, but the maximum occurred in 1900. In 1898 the death rate was 2·99 per 1,000, in 1900 it was 3·76, after which the rates fell irregularly, the minimum, 2·74, occurring in 1907. In comparing the admission with the death rates it appears that the case-mortality was considerably higher in the earlier part of the decennium than in the later. The lowest case-mortality occurred in 1902, and since then it has been very slightly higher and remarkably constant. It appears then that tubercle of the lungs is not increasing among the prisoners as a body, and either that cases are diagnosed at an earlier stage than formerly, or that treatment is rather more successful.

An examination of the statistics of the provinces separately yields somewhat different results; but it must be remembered that in the smaller numbers in the several administrations considerable fluctuations are to be expected. In Bengal and the Punjab admission rates and, in a less degree, death rates tend to rise; in the United Provinces death rates tend to fall, and in Madras both admission and death rates tend to fall. The figures relating to single jails, of course, fluctuate from year to year more than those relating to administrations, but in a few jails the admission and death rates have risen in recent years. This is especially noticeable in the case of the Alipore Central Jail where, particularly since 1904, the admission rates have been very high.

In those jails in which tubercle of the lungs is on the increase, special measures to prevent the spread of infection are obviously required, not only in the interests of the inmates of those jails, but in the interests of the prisoners in other jails in the administration and of the general public among

whom infected prisoners may carry the contagion of their disease when they are transferred or released.

In 1908 the admission rate on account of tubercle of the lungs was very high, 9·4 per 1,000, and the death rate, 3·76, was the highest since 1900. In that year the high death rate was largely due to the admission of many prisoners in an advanced stage of the disease; in 1908 of the 381 fatal cases no less than 122, or upwards of 32 per cent, were sent to hospital on account of tubercle of the lungs within three months of their admission to jail, 49 of them within a week. Most of those who died had been only a short time in prison, only 91, or 24 per cent of the deaths occurring among prisoners who had been in confinement for more than three years.

59. In 1904 there was a remarkable decline in the prevalence of pneumonia; the admission rate, which had always been over 13 per 1,000, fell to 10·7, and the death rate, which had always been over 3 and frequently over 4 per 1,000, fell to 2·79. In the following two years the improvement was more than maintained, but in 1907 the admission rate rose to 11·5 and the death rate to 2·90. In 1908 the admission rate rose to 12·4 and the death rate to 3·24 per 1,000. The seasonal distribution of the disease was abnormal, the numbers of cases occurring in January, March and October being much greater than usual, mainly owing to the extraordinary frequency of the disease in the United Provinces in those months. The death rates in the several administrations ranged from 4·91 per 1,000 in the United Provinces to 1·0 in the Central Provinces.

60. In 1908 there were 1,194 cases and 56 deaths ascribed to anæmia and debility compared with 1,048 cases and 42 deaths in the preceding year. The Nomenclature of Diseases no longer contains a heading "old age" and deaths considered by medical officers to be due to that condition are returned under anæmia and debility.

61. There were 337 cases of cholera and 170 deaths, compared with 140 cases and 55 deaths in 1907. The administrations which suffered most were Madras and Bengal. In Madras the cases numbered 150 and the deaths 74, equal to a death rate of 7·05 per 1,000. All the deaths except three occurred in the four northern jails where the prevalence and severe mortality from the disease are attributed by the Inspector-General to conditions of famine among the people. In Bengal there were 113 cases and 57 deaths, equal to a death rate of 3·98 per 1,000. In contrast to Madras the disease appeared in no less than 16 jails and in one subsidiary jail. The largest numbers of deaths in the several jails being nine each in Bankipore and Naya Dumka, eight in Angul and seven in Gaya.

62. There were 122 cases of small-pox and 15 deaths equal to a death rate of ·15. The highest provincial death rate was ·50 in the Central Provinces where there were three cases and two deaths. There were ten cases of plague and five deaths compared with 50 and 30 in 1907. There were 113 cases ascribed to enteric fever of which 36 terminated fatally. In 21 jails two or more cases were recorded. In all but four of the fatal cases the post-mortem appearances confirmed or supported the diagnosis.

63. Climatic conditions in Bengal during 1908 were abnormal chiefly in the early cessation of the monsoon rains and the large defect in the rainfall from October

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to the end of the year. The dry autumn may have tended to diminish the prevalence of malarial fevers, but throughout the province cholera was rife and this together with conditions of scarcity in a number of districts made the year as a whole an unhealthy one. The effect of the unfavourable conditions upon the health of the jail population was enhanced by the serious overcrowding which resulted from a great increase in the number of prisoners, the admissions to jail having risen from 78,891 in 1907 to 101,000 in 1908 and the daily average strength from 14,408 to 15,565. As there is accommodation in the 37 central and district jails for only about 15,200 prisoners of both sexes and all classes it is not surprising to find that according to the reports of medical superintendents no fewer than 30 jails were more or less seriously overcrowded during a part or the whole of the year.

The striking feature of the vital statistics is a great increase of mortality in the absence of a corresponding increase in the amount of sickness. The rate of admission to hospital was only 930 per thousand as compared with 938 in 1907, and the incidence of such important causes of sickness as malaria, pneumonia, and respiratory diseases was considerably diminished, but the death rate rose from the comparatively low rate of 16·94, to 31·61 per thousand and there were no fewer than 492 deaths as compared with 244. The increased mortality was due almost entirely to the unusually large numbers of deaths from dysentery, tubercle of the lungs, cholera, and "anæmia and debility." Dysentery caused 133 deaths as against 41, tubercle of the lungs 78 as against 45, cholera 62 as against 5 and anæmia and debility 15 as against 6. Excepting cholera, of which there were 121 more cases in 1908 than in 1907, the admission rates from the above diseases were not very markedly higher in the year under review than in the previous year, the greater number of deaths being due chiefly to their much greater fatality. So far as can be judged from the reports of the Inspector-General and of medical superintendents it appears that the most important causes of the high case-mortality were the serious degree of overcrowding which existed in almost all jails and the fact that as a result of conditions of scarcity or famine the prisoners admitted to a number of the jails were broken down in health and very feeble. The prevention of the diseases mentioned is rendered more difficult by the absence from all except 14 jails of separate hospital accommodation for cases of infectious disease.

Cholera which was exceedingly prevalent among the general population of the province was introduced into 16 jails, but it was prevented from attacking more than one or two prisoners in all except six. The largest number of admissions from it in any jail was thirty at Naya Dumka. From malarial fevers the admission rate declined from 347 to 248 per thousand and the death rate from 1·04 to ·84, the admission rate being the lowest since 1896 and the death rate is the lowest on record. The prophylactic use of quinine is systematically carried out. The industry of making up pice-packets and tablets of quinine for use in the province generally has been transferred to the prison for juveniles recently opened at Alipore, and more than four million packets were made up and despatched to various post offices during the year.

64. The number of prisoners who passed through the jails of Eastern Bengal and Assam during 1908 was nearly the same as during 1907, but the average daily strength fell from 7,310 to 7,118. There was overcrowding during part of the year in 21 of the 25 jails; in the Dacca central jail it was considerable throughout the year. The chief feature of the climatic conditions was a marked deficiency of rainfall, especially in Eastern Bengal, from June until the end of the year, the monsoon rainfall in that portion of the administration being 21 per cent in defect of the normal and the rainfall from October to December 53 per cent in defect. The rate of admission to hospital rose from 861 per thousand in 1907 to 917 and the death rate from 29.55 to 31.89, the mortality from all the principal diseases being increased. The admission rate from malaria was 283 per thousand as compared with 257 in 1907, but the increase was due to an unusual prevalence in a few jails, the admission rates in the majority being lower than in the previous year; and there were only nine deaths from the disease as compared with 19 in 1907. In the jails as a whole there was a slight decrease in the prevalence of dysentery, but 60 deaths occurred as compared with 53 in 1907, and in some jails such as Noakhali, Rangpur, Mymensingh, Rampur Boalia and Dacca the disease was severely prevalent.

Among the larger jails death rates over 40 per thousand were recorded at Rangpur (97.46 per thousand), Gauhati (51.95), Rampur Boalia (49.81) and Dinajpur (43.48).

65. Climatic and other conditions were very unfavourable to the health of the United Provinces. inhabitants of the United Provinces in 1908, and the effect was evident in an increased amount of sickness and mortality among the jail population. Until the end of May the rainfall was not far removed from the normal and in June the rainfall was generally below the average. The monsoon rainfall was irregularly distributed, in the west of the province, the total amount was just over the average, but it all fell within two months, in the east of the province the amount was in considerable defect. Prices of food grains were exceedingly high throughout the year, wheat for the jail population being bought on an average at only 8 seers and 10 chitaks per rupee as compared with 12 seers and 4 chitaks in 1907, and gram at 9 seers and 2 chitaks as compared with 15 seers and 15 chitaks. The provinces were visited in the autumn by an epidemic of malaria of exceptional severity.

The daily average strength of the prisoners rose from 23,887 in 1907 to 28,308. According to the reports of medical superintendents there was overcrowding for periods varying from a few days to the whole year in 36 of the 56 jails in this administration. From the middle of August to the beginning of December the old reformatory at Bareilly was used, with the object of avoiding overcrowding in the jails, to accommodate about 200 short term prisoners.

The rate of admission to hospital rose from 603 per thousand in 1907 to 679, and the constantly sick rate from 29 to 31, but, as in several other administrations, the most striking feature of the statistics is a rise in the death rate out of proportion to the increase in the amount of sickness. The rate was 24.09 per

thousand as compared with 15·03 in 1907, the total number of deaths being 682 as compared with 359. There was an increase in the mortality from all the chief diseases but it was greatest as regards dysentery, pneumonia, and tubercle of the lungs. Until August dysentery was not much more prevalent than in 1907, but during the last five months of the year it caused 880 admissions to hospital and 84 deaths, as compared with 516 admissions and 27 deaths in the same period of 1907. The seasonal prevalence was very similar to that of malaria and in two jails, Gorakhpur and Saharanpur, which, on account of their unhealthiness in most years, had been selected for a rigid trial of quinine as a prophylactic of malaria, it appeared to the medical superintendents that the administration of the prophylactic doses had a marked effect in reducing the number of cases of dysentery as well as of malaria. In the Gorakhpur jail during the last four months of the year (the period during which quinine was administered) the statistics show only 14 admissions to hospital for dysentery as compared with 35 during the previous four months and 34 during the first four months. Perhaps the great deficiency of the rainfall in the Eastern portion of the provinces, where Gorakhpur is situated, may have tended to reduce the prevalence of dysentery in this jail, but against this view may be set the fact that in some other jails in the same area (such as Ghazipur) dysentery was exceedingly prevalent and fatal. In all the jails pneumonia caused 139 deaths as compared with 82 in 1907. There were 270 cases during the first half of the year and 246 during the second half. The admission rate from tubercle of the lungs was 8·2 per thousand and the death rate 2·79, as compared with rates of 5·4 and 1·67 in the previous year. The highest rates were recorded in the jails at Etah, Dehra Dun, and Bijnor. Malaria caused 41 per cent of the total admissions to hospital during the year as compared with 33 per cent in 1907. The admission rates varied enormously in different jails, but in 40 jails they were higher and in 16 jails lower than in 1907. The highest rates per thousand were 1481 in Mainpuri, 1203 in Muzaffarnagar, and 1100 in Bulandshahr, and the lowest 8 in the Lucknow central jail, 27 in Mirzapur, 46 in the Lucknow district jail, 60 in Rai Bareilly, and 65 in the Allahabad central jail. The number of deaths increased from 21 to 44. The Inspector-General considered that in comparison with the free population the prisoners escaped the disease to a very considerable extent probably owing to the prophylactic use of quinine in most jails. The good results of this measure at Gorakhpur and Saharanpur, which are specially mentioned as the jails where it was carried out systematically under the supervision of the medical superintendents, have already been referred to. The death rate from all causes in the first of these two jails fell from 38·89 per thousand in 1907 to 20·87 and in the second from 53·10 to 34·21.

66. The unusual abundance of the monsoon rainfall in the Punjab from July to September was followed by a very un-

Punjab.

healthy autumn, but as regards the prison population the success attained in counteracting the influences of adverse climatic conditions is a noteworthy feature of the year. The number of jails was the same as in 1907 and with an increase of about 2,000 in the number of persons imprisoned and a rise in the daily average population from 11,154 to 11,919 there was overcrowding in seven jails. In some districts the homes of many people were destroyed by floods and this as well as the high price of food may have helped to fill the prisons. A year characterised by adverse climatic and other conditions is one in which the efforts of medical superintendents to

counteract the influence of such conditions can be well tested, and as regards the prison population of the Punjab the success attained was great. The rate of admission to hospital was only 581 per thousand as compared with 707 in the previous year and the constantly sick rate only 26 as compared with 30. The deaths, however, numbered 280 as compared with 221 the rates per thousand being 23.49 and 19.81 respectively. This increase was due entirely to the greater prevalence of and mortality from tubercle of the lungs, dysentery, and pneumonia. On the other hand the statistics of malaria, another disease greatly influenced by climatic conditions, show in a remarkable manner the effect of the control exercised by medical superintendents upon the incidence of preventable disease. In many parts of the Punjab the autumn was the most malarious of which there is record, but, as a result of the thorough manner in which the prophylactic administration of quinine was carried out, the prisoners enjoyed a remarkable immunity, the admission rate being only 164 per thousand as compared with 232 in 1907 and 365 the mean rate for the years 1902-06. There were only five deaths ascribed to malaria during the year and in none of these was the fatal issue due to malaria alone. A special report on the protection from malaria afforded to the prisoners by the use of quinine has been written by the Inspector-General, Lieutenant-Colonel Braide, I.M.S., and widely circulated. Tubercle of the lungs caused 154 admissions to hospital and 70 deaths as compared with 118 admissions and 43 deaths in 1907. In the Montgomery central jail there were 62 admissions with 27 deaths and in the Lahore central jail 20 admissions with 13 deaths. The former jail was overcrowded throughout the year and is not yet provided with a special ward for the segregation and treatment of tuberculous patients. There is a special ward in the latter jail as well as in the jails at Rawalpindi and Multan (central and district). The Inspector-General advocates the provision of a special prison for tuberculous patients. Dysentery caused twice as many deaths as in 1907, September and October being the months of greatest prevalence. Four cases of plague occurred during the year and there were five cases of cholera with one death, and 16 of smallpox with two deaths. Thirteen prisoners were released on medical grounds as compared with eight in 1907.

67. The average strength of the population in the five prisons of the North-West Frontier Province during 1908 was 1,345 as compared with 1,183 in the previous year, the increase being attributed to the increase of crime which usually follows a rise in the price of food. All the jails were overcrowded during a portion of the year, the periods of overcrowding varying from 28 days at Dera Ismail Khan to 211 at Peshawar. The exceptionally heavy rainfall of the year was unfavourable to the health of the free population; among the prisoners, however, the rate of admission to hospital was only slightly higher than in 1907 and the death rate was only 15.61 per thousand, which is less by 2.14 than the rate of that year. Malaria was very prevalent in the Peshawar jail, the admission rate being 1247 per thousand as compared with 559 in 1907, but there was no death from the disease in this jail and only two from it in the other jails. From all causes there were 21 deaths in the five jails, the number being the same as in the previous year. Six of the deaths were due to pneumonia, three to respiratory diseases, one to tubercle of the lungs and one to dysentery. Although cholera was prevalent in the province, no case

occurred among the prisoners. In the Peshawar jail a small outbreak of typhus fever, causing six cases and one death, occurred in March. The hospital appeared to be the place where infection was contracted and there was reason to think that bed bugs, which were abundant in the corners and joints of the iron bedsteads, were carriers of the infection. In addition to adopting the usual measures of isolation and disinfection, all bed bugs were killed by placing the bedsteads in fires made by burning dried leaves. The outbreak ceased shortly afterwards.

68. With an increase in the average daily strength of the prisoners in the Central Provinces from 3,241 in 1907 to 4,013 in 1908, there was occasional or continuous overcrowding in 13 of the 21 central and district jails. The monsoon broke about the middle of June and gave good rain in all districts. The rainfall was heavy and continuous in July and August and until near the end of September the amount being 6 per cent in excess in the west of the Central Provinces; 20 per cent in excess in the east and 24 per cent in excess in Berar. The admission, constantly sick and death rates were all considerably higher than in 1907. Malaria, abscesses, and dysentery were the principal causes of sickness, and dysentery, tubercle of the lungs, and respiratory diseases the principal causes of death. The admission rate of malaria rose from 160 per thousand in 1907 to 239, and that of dysentery from 34 to 45. In all except the central jails at Jubbulpore, Raipur, and Nagpur, the average annual strength is too small to permit of fair comparison between the rates in different jails, but it may be said that the highest admission rate from malaria was recorded in the Nagpur central jail which is in the area where the excess of the monsoon rainfall over the normal was least. In this jail the disease caused 461 admissions to hospital and one death. On the other hand in the Amraoti and Akola jails in Berar where the monsoon rainfall was 24 per cent in excess of the normal the admission rates from malaria were only 17·8 and 90·4 per thousand respectively. An attempt to carry out a systematic experiment to test the value of quinine as a prophylactic of malaria was without definite result. Tubercle of the lungs caused in all the jails 40 admissions to hospital and 16 deaths, of which seven occurred in the Nagpur central jail and three in the Raipur central jail. Three cases of small pox occurred during the year; there was no case of cholera or plague.

69. The jails at Mangalore and Russellkonda were reduced to the status of sub-jails during 1908, so there are now only eight central and six district jails in the Madras administration. The year was an unfavourable one, for cholera was prevalent in a number of districts and although the monsoon rainfall was practically normal there was a serious deficiency of rainfall from October to December, the prices of food grains were high, and the effects of scarcity were apparent in the Northern Circars. Partly as a result of conditions of scarcity there was a considerable increase in the number of admissions to jail, and, with an increase in the daily average strength from 10,166 to 10,638, seven jails were more or less overcrowded during the year. The rate of admission to hospital rose from 376 per thousand in 1907 to 443, and the death rate from 18·79 to 29·80, cholera, dysentery, tubercle of the lungs and "anæmia and debility" being the diseases which mainly contributed to the greatly

increased mortality. The different jails shared very unequally in the increase of sickness and mortality, and although in only two jails (Coimbatore and Tanjore) were both the admission and death rates lower than in 1907, there were out of the 16 jails five in which the admission rate was lower than in that year and seven in which the death rate was lower. Cholera appeared in six jails and accounted for 152 cases and 75 deaths, as compared with 106 and 39 in 1907. Sixty-eight of the cases occurred in July and 53 in August. In proportion to population Russellkonda, with a death rate from this disease of 200 per thousand, was the jail most severely affected, but most cases and deaths (64 and 24) occurred in the Rajahmundry central jail. Dysentery caused an admission rate of 64 per thousand and a death rate of 7.05, as compared with rates of 57 and 2.85, respectively, in 1907. No jail was entirely free from the disease, but the jails at Rajahmundry, Vizagapatam, Berhampur, and Russellkonda situated in the scarcity area (to which cholera was almost confined), were among those with the highest admission rates. August was the month in which most cases occurred, but in several jails the numbers of admissions in each month of the year were almost equal. The case-mortality rose from 4.7 per cent in 1907 to 10.6 per cent. The death rate from tubercle of the lungs rose from 2.46 to 3.20 per thousand, only five jails being without a death from this disease. There are specially constructed wards for the treatment of tuberculous patients on the open air system at Trichinopoly and Bellary, and in several other jails there are wards set apart entirely for such cases.

70. The daily average population of the 17 prisons in Bombay increased from 7,537 in 1907 to 7,930 in 1908, and seven of the prisons were overcrowded for a considerable part or the whole of the year. Four of the remaining prisons were overcrowded for short periods. The admission, constantly sick and death rates were 654, 33, and 18.16 per thousand, respectively, as compared with 693, 32, and 20.96 in 1907, the death rate being, with the exception of that in 1905, the lowest on record. Cholera was prevalent among the free population of the province during the year, and severe outbreaks of malarial fever followed disastrous floods in Hyderabad, but only one death from the former disease occurred among the prisoners, and the admission rate from the latter was only 1.26 per thousand as compared with 1.78 in the previous year. The decrease in the prevalence of malaria was most marked in the Yerrowda central prison where there were only 272 admissions as compared with 673 in 1907. Quinine prophylaxis was carefully carried out in this jail and in some others, the decrease being attributed generally to this measure. It was attributed to anti-mosquito measures in only one jail, Rajkot, in regard to which it was said: "a weekly mosquito inspection has been made and it appears reasonable to ascribe to this the almost complete absence of admissions to hospital for malaria." The average population of the jail was only 80. Pneumonia and tubercle of the lungs were, as usual, the principal causes of death among the prisoners in this administration, the former disease being most prevalent and fatal among convicts in the Sind gang. The prisoners in this gang are employed on railway work, and during the year under review were exposed to unusual hardship on account of the destruction of their temporary barracks by heavy rainfall in July. A new hospital for cases of pneumonia in this gang has been built. Tubercle of the lungs caused 52 admissions to hospital and 24 deaths, as compared with 44 admissions and 19 deaths in 1907. The largest

number of cases and deaths (21 and 9) occurred in the Yerrowda central prison. In 7 jails no case was recorded, and the Deccan and Sind gangs, both of which are engaged entirely in extra-mural labour, were also free from the disease. Two outbreaks of cerebro-spinal fever occurred in the Hyderabad central prison and caused in all 15 cases with 12 deaths.

71. In Burma the monsoon rainfall of 1908 was normal and favourably distributed, but the rainfall from October until the end of the year was greatly in excess. This was unfavourable to health, and the steady almost yearly decrease in the sickness and mortality which has become a striking characteristic of the vital statistics of prisoners in this administration was interrupted. The average daily strength of the jail population was 13,871, as compared with 13,721 in 1907, the rate of admission to hospital was 277 per thousand, as compared with 256, and the death rate was 13·27, as compared with 11·88. Abscesses, malaria, and dysentery were the principal causes of sickness, and tubercle of the lungs, dysentery, and pneumonia the principal causes of death. The admission rate from malaria fell from 36·4 per thousand in 1907 to 35·6, and only seven deaths from this disease were recorded, the admission rate being, as usual, much lower than in any other administration. In the jail at Sandoway no case of malaria occurred, and there was only one case in each of five other jails, among which is included Henzada where more than 1,800 prisoners were received during the year. In this jail prophylaxis by the administration of quinine was carefully carried out during the whole year. Dysentery caused 269 admissions to hospital, as compared with 275 in 1907, but there were 19 deaths as compared with only ten in that year. A case or cases occurred in 22 of the 30 jails, the largest number (96) being in the Myingyan central jail. In 17 jails there was no death from the disease. There were 106 cases of tubercle of the lungs with 47 deaths, as compared with 67 cases and 42 deaths in 1907. The difficulty of disinfecting clothing and blankets used by tuberculous patients has been overcome by the installation of a Thresh's disinfector in each central jail. Nine jails were entirely free from both tubercle of the lungs and pneumonia during the year. Cholera caused 17 admissions with eleven deaths, and plague three admissions with two deaths. Rat killing was carried on, and the store rooms for grain in all jails have now been made rat-proof.

The old jail at Moulmein was vacated and the new one occupied on the 14th of November 1908.

72. There was no overcrowding in the jail at Ajmer during 1908. The water-supply from the jail wells during the first nine months was deficient and had to be supplemented by purchase of Foy Sagar (municipal pipe) water. The average annual strength of the prisoners was 359 and 123 admissions into hospital and five deaths occurred during the year, giving ratios of 342·6 and 13·93 per thousand, respectively, compared with 431·5 and 15·50 in 1907. In the Mercara jail, where the average annual strength was 92, there were six deaths during the year, two of which were due to pneumonia. At Quetta, where the average strength was 51, there was no death, and at Secunderabad (average strength 85) there were two deaths during the year, one from pneumonia and one from dysentery.

73. The conditions in which convicts in the Andamans live render it impossible, under existing arrangements, for the supervision of all matters relating to

Andamans.

labour, dieting, and health to be so thorough as in Indian prisons, with the result that the statistics of sickness and mortality among these convicts contrast unfavourably with those of convicts in India. The reduction of the age limit for transportation to 40 years, the more stringent rules regarding the selection of convicts for transportation, and improvements in the sleeping accommodation have resulted in a great diminution in the deaths among new arrivals to the settlement, and this has made the death rate for convicts as a whole appear more favourable, but among men of more than one year's residence the statistics of health are still very unsatisfactory. The average strength of the convict population during 1908 was 14,067, or 404 less than in 1907, and there was no overcrowding, except in the hospitals, during the year. The monsoon rainfall was abnormally heavy, but it is not apparent that the excess was markedly unfavourable to health for the rate of admission to hospital from all causes was only 1,439 per thousand compared with 1,903 in the previous year, and malarial fevers, pneumonia, respiratory diseases and scurvy were all considerably less prevalent. The admission rate from dysentery was one per thousand higher than in 1907, and from tubercle of the lungs it was 2·3 per thousand higher. The latter disease caused 100 deaths as compared with 75 in 1907, and to the greater mortality from this disease was due almost entirely the rise in the general death rate from 23·59 per thousand in 1907 to 26·66 in 1908. Dysentery and pneumonia were the other most important causes of death in the settlement, the former causing 61 deaths and the latter 58, compared with 45 and 62, respectively, in 1907. A noteworthy feature brought out in the statistics of the settlement is the good health of the convicts in what is called the "Jail district" compared with that of convicts in the Eastern and Western districts. It suggests that if all the convicts could be subject to closer medical control the amount of sickness and mortality in the settlement would be much reduced.

SECTION V.

VITAL STATISTICS OF THE GENERAL POPULATION.

74. The populations among which births and deaths were registered in 1908 numbered 226,409,600, and the number of births recorded among them during the year was 8,554,427, compared with 8,505,563 in 1907. The birth rate was 37·78 per thousand, compared with 37·65 in 1907, and a quinquennial mean of 39·23. By far the highest birth rate was 52·84 per thousand, recorded in the Central Provinces. In only three other provinces were the rates over 40 per 1,000, namely, Ajmer-Merwara, 42·48, Eastern Bengal and Assam, 41·14, and the Punjab, 41·8. In only the small province of Coorg was the rate below 30; there the low rate, 24·17, is due to exceptional conditions, among them the small proportion of females in the population. In the other provinces the rates varied between 37·46 in the United Provinces and 32·4 in Madras. In all provinces, except Bengal and the United Provinces, the birth rates of 1908 were higher than those of 1907, and in all provinces, except Bengal, the United Provinces, the Punjab and Coorg, the births recorded were more numerous than the deaths, the excess being most noteworthy in the Central Provinces (14·72 per thousand), Eastern Bengal and Assam (10·40) and Bombay (8·57). The percentage of male to female births varied from 123·6 in the North-West Frontier Province to 104·03 in the Central Provinces and Berar and 101·43 in Coorg.

75. The total number of deaths registered was 8,653,007, compared with 8,399,623 in 1907 and a five years mean of 7,680,007. The death rate was 38·21, or 1·03 per thousand higher than in 1907 and 4·25 higher than the mean death rate of the previous five years. In the different provinces the rates ranged from 52·73 per thousand in the United Provinces to 26·2 in Madras. In all provinces except Bombay, the Punjab, the Central Provinces and Coorg the death rates were higher than in 1907, and in all provinces except Eastern Bengal and Bombay they were higher than the quinquennial means. In all provinces except Bengal, Eastern Bengal and Assam, the United Provinces, the Central Provinces and the North-West Frontier Province the urban death rates were higher than the rural, and in all provinces, save the United Provinces, the Punjab, the North-West Frontier Province, Coorg and Ajmer-Merwara the death rates of males were higher than the death rates of females.

In India as a whole the lowest death rate was registered in July, and this was the month in which the lowest rates were registered in the United Provinces, the Punjab, the North-West Frontier Province, Ajmer-Merwara, and the Central Provinces. The highest death rate was recorded in November, when the highest mortality occurred in the United Provinces and the North-West Frontier Province.

Cholera was present in every province except Ajmer-Merwara, and was severe in Bengal (death rate 5·32 per thousand) and Madras (3·9). Small-pox was more prevalent than in 1907, especially in Northern India, and rates of over ·5 per

thousand were recorded in six provinces, including rates of 1·81 in Ajmer-Merwara, 1·42 in the Punjab and 1·26 in the United Provinces. Compared with 1907 there was an enormous reduction in the mortality from plague throughout the country, the most conspicuous falls in the death rates being in the Punjab from 30·27 per thousand to 1·53, in the United Provinces from 6·90 to ·48 and in Bombay from 5·06 to 1·48. In Madras the plague death rate of ·1 per thousand remained unchanged and there was a rise in the comparatively low rates recorded in Ajmer-Merwara and Coorg. Owing to the severe epidemic of malarial fever in the autumn the fever death rates in the United Provinces (41·31), the Punjab (34·66) and Ajmer-Merwara (30·79) were exceptionally high. A reference to statement No. VII of the appendices to this section will show that in a few provinces the death rates under "all other causes" vary inversely with those under fever. The death rates registered under dysentery and diarrhoea and under respiratory diseases, as usual, vary greatly in the different provinces, the variation being due in most cases rather to defect in registration than to the varying prevalence of the diseases.

76. A legacy of high prices from the preceding year, defective and irregularly distributed spring rains, and the premature cessation of the monsoon resulted in conditions which were very unfavourable to the public health. The birth rates were generally low, and the death rates from cholera and bowel complaints owing to scanty and polluted water-supplies and the use among the poorer classes of unsuitable food were higher than usual.

Among the 50,528,446 people who constitute the census population under registration in Bengal there were recorded in 1908 a total of 1,823,716 births, equal to a rate of 36·09 per mille, compared with 37·70 in 1907 and 38·90, the mean of the previous five years. The highest district birth rates were 44·68 per thousand in Muzaffarpur, 43·85 in Champaran and 42·44 in Sambalpur, while excluding the urban district of Calcutta, where the rate was only 20·10, the lowest rates were 30·30 in Hooghly, 28·76 in Birbhum and 26·31 in Burdwan.

In only two of the 128 towns, Jamalpur (58·02) and Sahibganj (55·43), were the birth rates over 50 per thousand, while in no less than 84 the rates were below 25, the lowest rate being 6·96 in Tittaghar.

The percentage of male to female births was 105, the district percentages ranging from 109 in the 24-Parganas and Purnea to 101 in Singhbhum.

The deaths registered numbered 1,948,513, and the death rate was 38·56 per thousand, compared with 37·72 in 1907 and a mean of 35·53 in the previous five years. The death rate was 2·47 per thousand higher than the birth rate in the province generally, and in 17 of the 33 districts the deaths outnumbered the births.

In all the districts of Chota Nagpur, and most of the districts of Orissa and Burdwan, the birth rates were exceptionally low and the death rates exceedingly high. The highest district death rates were 67·44 in Balasore, 59·45 in Palamau and 59·11 in Ruri, in all of which cholera was terribly prevalent; the lowest death rates were 29·31 in Howrah, 28·63 in Darbhanga and 26·44 in the 24-Parganas. In rural areas the mean death rate was 39·06 per thousand

compared with 31·20 in the towns, in which it is said improved sanitation is now exercising an appreciable effect. Among the towns by far the highest death rate was 94·25 recorded in the small Sonthal town of Dumka, where cholera and small-pox were very severe. The next highest rate was 59·83 registered in Roserha in Darbhanga and 57·73 in Gaya, the high mortality being due to plague in the former and to cholera, small-pox and fevers in the latter. No town was entirely free from cholera at one time or another during the year. The highest monthly death rate in the province as a whole occurred in June, and the lowest in October. Hindus died at the rate of 39·53 per thousand, Muhammadans at the rate of 34·22, and "other classes" at the rate of 40·52; the death rates of Christians and Buddhists were 27·74 and 30·71 per thousand, respectively.

The death rates of male and female infants reckoned on the number born during the year, were 226·0 and 212·8 per thousand, respectively; and male children between one year and 5 years of age died at the rate of 59·97, while females died at the rate of 53·30. At all age periods the male death rates were the higher, the general death rate of males being 40·61 and of females 36·54 per thousand.

77. The experiment of testing the accuracy with which deaths are at present registered in rural areas in Bengal was continued in the Galsi *thana* of the Burdwan district during the year ending the 31st July 1909. The population of the area, which was ascertained by a special census to be 53,277 at the beginning of the enquiry in August 1906, was found at a similar census taken on the 1st of August 1908 to have fallen to 50,973. The results obtained during the first and second years of the enquiry were given in Section V of these reports for 1906 and 1907, and those for the third year are set forth in the same form in the following statement.

	Cholera.	Small-pox.	Plague.	Fever.	Dysentery and diarrhoea.	Respiratory diseases.	Injuries.	All other causes.	Total.
Number of deaths recorded in the <i>thana</i> register	138	8	...	995	59	27	10	264	1,501
Number of deaths according to the investigation	142	10	...	423	157	426	11	321	1,490
Ratio per thousand according to the results in the <i>thana</i> register.	2·71	·16	...	19·52	1·16	·53	·20	5·18	29·45
Ratio per thousand according to the results of the investigation.	2·78	·20	...	8·30	3·08	2·31	·22	6·30	29·23

78. The cold weather rainfall was in defect in Assam and somewhat above the average in Eastern Bengal; the hot weather rainfall was in defect in both areas. The monsoon was weak and retreated early, and although the rainfall was approximately normal in Assam, it was seriously deficient in Eastern Bengal. Prices although lower than in 1907 were higher than normal; but it is stated that the high prices and scarcity produced no ill effect on the public health.

The population under registration, excluding certain hill tracts, numbered 29,812,735, and among them 1,226,602 births were registered. The birth rate was 41·14 per thousand, compared with 37·01 in the previous year and 38·56 the mean of the previous five years. No special explanation of the increase in the birth

rate is given in the provincial report, but details showing how defective is the registration of births, not only in rural areas but in areas where registration is intended to be compulsory, show that a possible explanation is improved registration. The birth rates in 1908 were higher than in 1907 in every district in the province, and in all except Bakarganj, Rajshahi, Pabna and Malda they were higher than the quinquennial mean. The highest district rates were 52·40 per thousand in Goalpara, 46·97 in Noakhali, and 45·77 in Bogra, and the lowest were 34·77, 33·94 and 31·29 in Lakhimpur, Pabna and Sibsagar, respectively. The mean rate in rural areas was 41·49 per thousand compared with 25·08 in the towns, the extreme rates in the latter being 51·40 in Barpeta and 2·29 in Jhalakati. The mean percentage of male to female births was 107; in the districts the percentages ranged from 109 in Bakarganj, Pabna and Lakhimpur to 104 in Rajshahi, Goalpara and Darrang.

The recorded deaths totalled 916,546, and the death rate was 30·74 per thousand, compared with 29·30 in 1907 and 31·60, the mean of the previous five years. The highest district death rates were recorded in Darrang, 51·40 per thousand, Sibsagar, 44·73 and Jalpaiguri 43·11; in these districts and in Lakhimpur (40·77) the numbers of deaths registered were larger than the numbers of births. Cholera was severe in Darrang, Sibsagar and Lakhimpur; in Jalpaiguri the high death rate was mainly due to fever, but cholera was unusually prevalent there also. The lowest district death rates were 24·10, 23·93 and 19·97 recorded, respectively, in Dacca, Tippara and Mymensingh. The rural death rate was 30·92 compared with 22·23 in the towns. In a few of the towns on or near the river the death rates were very high owing to the prevalence of cholera, notably in Tezpur (57·26), Golaghat (46·62), Sibsagar (43·06), and Dibrugarh (42·49).

Muhammadans and Hindus died at the rates of 30·53 and 29·85, respectively, and Christians and Buddhists at the rates of 26·21 and 24·26, while "other classes" died at the rate of 53·64. The rates among "other classes" were extraordinarily high in Cachar, Sylhet, Sibsagar and Lakhimpur.

Male and female infants died, respectively, at the rates of 194·5 and 175·2 per thousand born during the year; and boys and girls between one year and five years of age at the rates of 41·45 and 36·64 per thousand of the census population at these ages. In the age periods 15-20, 20-30 and 30-40 the death rates of females were higher than the death rates of males, but in all other age periods the rates of males were the higher, the general death rates being 31·75 among males and 29·69 among females.

79. The mean annual strength of the coolies employed on tea-gardens in Assam during the year ending the 30th June 1909, increased from 712,002 to 747,812. Of the total labour force 36·76 per cent were employed in the Surma Valley and 63·24 per cent in the Assam Valley against 37·17 and 62·83 per cent in the previous year.

The birth rate for the year was 22·7 per thousand of the total population, and 75·1 per thousand of the adult female population compared with 27·6 and 90·0 per thousand respectively in 1907-08. The corresponding provincial ratios for the calendar year 1908 were 41·14 and 193·0 per thousand.

The registered death-rate increased from 29·2 to 34·3, the total number of deaths being 25,630. The provincial registered death rate for the year 1908 was 30·74 per mille.

The principal causes of deaths were dysentery (5,628), malarial fever (3,149), cholera (2,905), respiratory diseases (2,743), anchylostomiasis

(2,674), and diarrhœa (2,130). The death rate among coolies from all recruiting areas showed an increase.

Of a total of 733 gardens 63 were brought on the unhealthy list, (*i.e.*, with a death-rate of over 70 per mille among the garden population as a whole, or among the act or non-act population taken separately, all number of deaths being not less than ten.) In the preceding year 28* of the 731* gardens were declared to be unhealthy.

There were 75 deaths, including 50 from cholera, among coolies journeying to the Assam Valley, against 713 in the previous year. No death was reported among coolies in transit to the Surma Valley.

80. In view of the extraordinary epidemic of malarial fever in these provinces in the autumn of 1908, details regarding the rainfall are of special interest, and it is unfortunate that a general sketch of the conditions must always fail to convey a correct idea of what took place in particular localities. In the second week of January there was favourable general rain throughout the province, and in the end of the month a good deal of rain fell in the districts in the north and west. Early in February there was again fairly general rain, but from then until the monsoon the rainfall was slight in amount and local in character, and the weather was hotter and drier than usual. The monsoon was not fully established until the 1st July in the west of the province and not until the middle of the month in the east. The rainfall in August was in defect in the east, and in excess in the west of the province. In the first week of September there was light or moderate rain in all districts, and this was the last rain that fell in the Agra and Meerut divisions. In the more easterly districts more rain was received in September, and there were a few falls in October. November and December were drier than usual.

The number of births registered during the year was 1,786,702, equal to a birth rate of 37·46 per thousand, which is 3·72 per thousand less than in 1907 and 5·63 per thousand less than the quinquennial mean. The cause of the decline, which, compared with the mean, was common to every district in the province, except Hamirpur, Banda, Jalaun and Jhansi in the south and Azamgarh in the east, is stated by the provincial Sanitary Commissioner to have been probably a result of scarcity and high prices. The highest district rates were 61·28, 59·99 and 48·78 per thousand, registered in Jhansi, Hamirpur and Jalaun, respectively, and the lowest were 27·36, 27·07 and 25·12 registered in Bara Banki, Bahraich and Dehra Dun. The recorded births were in excess of the deaths in only eight districts, Almora and Garhwal in the north, Hamirpur and Jhansi in the south, and Gorakhpur, Ghazipur, Ballia, and Benares in the east. In Dehra Dun the percentage of male to female births was 121·96, and in Garhwal it was 99·90; in the other districts the percentages ranged from 116·36 in Muzaffarnagar to 104·12 in Almora, the provincial mean being 109·11.

The number of deaths registered was 2,514,761 and the death rate reached the figure, unprecedented in these provinces, of 52·73, or 9·27 per thousand higher than in 1907, and 12·43 in excess of the quinquennial mean. Cholera and small-pox were unusually prevalent, but 78 per cent of the deaths were registered under the heading "fever," to which was due the death of one person in every 24 of the population. The death rates were over 70 per thousand in six of the districts, namely, Budaun 78·02 (fever death rate 68·63), Muttra 76·98 (70·31), Bareilly 76·85 (67·31), Hardoi 73·52 (59·31), Farrukhabad 71·45 (60·32), and Morada-

* Revised figures.

bad 70·01 (59·16). In only two districts, Dehra Dun 30·66, and Ballia 27·71, were the rates less than 31 per thousand. In rural areas the mean mortality was 53·0 per thousand against an urban mean of 49·20. In some of the towns extraordinarily high rates were recorded, *e.g.*, Kairana 114·53 (cholera 7·35 and fever 104·69), Shikohabad 93·26 (fever 90·85), Atrauli 88·28 (fever 68·17), and Hathras 79·97 (plague 15·81 and fever 49·88). February and July were the healthiest months; in September the death rate was high and in October, November and December it was twice or more than twice as high as usual.

The Hindu death rate, 53·48, was considerably higher than the Muhammadan, 49·84; the death rates among the small populations of "other classes" and Christians were 11·32 and 10·46 per thousand, respectively.

Calculated upon the numbers born during the year, the death rates of male and female infants reached the high figure of 336·5 and 354·6. Boys and girls between the ages of one year and five years died at the very high rates of 115·96 and 117·78 per thousand of the census populations at those ages, respectively. Males and females over 60 years of age died at the rates of 130·22 and 117·13 per thousand. At all age periods, save 15-20 and 20-30, the death rates of males were the higher, but the general mean death rates of the sexes were 51·79 among males and 53·73 among females, an unusual relation due to the exceptional mortality among female infants and young girls.

81. In the first three months of the year the rainfall was in defect; April was unusually wet, but May was drier and June hotter than usual. The monsoon was not established until the first week in July, but the rainfall in July and August was greater than the average. The first week of September was marked by unprecedentedly heavy rain in the west of the province, after which there was practically no rain during the rest of the year. In every district, except Simla and Ambala, the rainfall during the third quarter was in excess of the normal, and, owing to the extraordinary volume of the falls, floods were universal. Crops were destroyed, towns were inundated not only by the local heavy rain, but in many cases by torrents from the hills. Houses collapsed and many parts of the country were covered for weeks by sheets of water which maintained the atmospheric humidity above the average until December. These calamities aggravated the existing scarcity and caused almost the highest death rate the Punjab has ever known.

The number of births registered was 840,061; the birth rate was 41·8 per thousand which is 1 per thousand more than in 1907, but 0·8 per thousand less than the quinquennial mean. In the district of Lyallpur the recorded birth rate was 74·3 per thousand, but this rate is calculated from the census population which has been greatly augmented. The birth rate of Lyallpur, calculated on the estimated population, was, however, 59·3, which is considerably higher than any other district rate, the next highest being 50·5 in Shahpur and 48·2 in Multan. The lowest rates were 34·2 in Ambala, 32·2 in Kangra and 19·7 in Simla. The mean birth rate in the 43 large municipal towns was 40·7, which is 1·0 per thousand more than the five years' mean.

The deaths numbered 1,020,125, or 228,604 fewer than in 1907, when there were 608,685 deaths from plague. The death rate of 1908 was 50·73 (including 1·53 from plague) per thousand compared with 62·1 in 1907, and 48·9, the mean of the previous five years. In all districts except seven, namely,

Gurdaspur, Attock and Mianwali, Lyallpur, Multan, Muzaffargarh and Dera-Ghazi Khan in the Multan Division, the numbers of deaths exceeded the numbers of births. Cholera was more prevalent than usual and so were small-pox and diseases of the bowels and respiratory organs, but the great cause of death was 'fever,' from which the recorded death rate was 34·66, compared with a mean of 20·60 in the previous five years.

The highest district death rates were 84·1 recorded in Gurgaon (where the fever death rate was 50·7 per thousand), 72·5 in Delhi and 63·8 in Amritsar; the lowest rates were 37·0 in Muzaffargarh, 31·8 in Dera Ghazi Khan and 25·1 in Simla.

In rural areas the mean rate was 50·19 compared with 55·58 in the towns, in four of which death rates in excess of 100 per thousand were recorded, namely, Palwal, 121·43, and Hodal, 107·10, in Gurgaon; Fazilka, 107·23, in Ferozepore, and Bhera, 102·09, in Shahpur, all comparatively small towns in which the inhabitants were exposed to great hardships on account of floods.

Hindus and Muhammadans died at the rates of 50·44 and 50·91, respectively, and Christians at the rate of 58·07. Death rates were fairly normal until August, and, owing to the decline in plague mortality, lower in the first part of the year than has recently been the case; but they began to rise in September and remained high until the end of the year, the October death rate being much the highest.

When all were attacked by fever, children and the aged, as was to be expected, suffered a heavy mortality. Calculated on the numbers born, infants died at the rate of 305 per thousand among males and 322 among females, and boys and girls between one year and five years of age died at the rates of 111·33 and 121·99 per thousand of the census population at those ages. Males over 60 died at the rate of 110·94 and females at the rate of 118·67 per thousand of the census populations. As usual in the Punjab, females died at a higher rate than males at all age periods, the general rate being 47·9 among males and 54·0 among females.

82. The number of births recorded in 1908 was 71,181, equal to a birth rate of 37·3, which is 4·8 and 1·5 per thousand higher than the rate recorded in 1907 and the five years' mean, respectively. In the districts the rates varied between 40·8 in Bannu and 35·1 in Peshawar. The registered percentage of male to female births ranged from 136·6 in Peshawar to 111·6 in Bannu, the provincial mean being 123·6.

North-West Frontier Province.

The autumn rainfall was excessive in Peshawar and Kohat, and there was a severe epidemic of malaria in the autumn, but it began later and ended earlier than the epidemic in the Punjab, and its effects were much less deadly.

The number of deaths from all causes registered was 68,361, and the death rate was 35·8 per thousand, compared with 35·1 in 1907 and 31·5, the quinquennial mean, the district rates varying between 37·7 in Hazara and 31·6 in Dera Ismail Khan. In rural areas the mean death rate was 35·85, compared with 35·59 in the towns, among which the highest death rates were 65·39 in

Nowashahr, where some form of fever was particularly fatal, 46.52 in Buffa, where there was an outbreak of cholera, and 40.88 in Peshawar.

Mortality in the province was comparatively low in the spring and summer months of the year except May, when there were 775 deaths from cholera, which continued to affect the rates until November. In October and November the fever mortality was high, particularly in Peshawar. Muhammadans died at the rate of 36.9 and Hindus at the rate of 24.7 per thousand.

Calculated on the recorded births the infantile death rates were 220.0 and 218.3 per thousand among males and females, respectively. Boys and girls between one year and five years of age died at the rates of 55.6 and 54.2 per thousand of the census populations at these ages. At all other age periods the death rates of females were higher than the death rates of males, the mean death rates being 35.2 among males and 36.5 among females.

83. The winter rains were in defect, but the monsoon broke about the middle of June and gave good rain to every district. In July and August the rainfall was heavy and continuous and the rains did not cease until near the end of September. There was no rain in the last quarter. The price of food grains was high, but the year generally was a healthy one.

Central Provinces.

The births numbered 633,575 and the birth rate was 52.84 per thousand, compared with 52.46 in 1907, and 51.26 the quinquennial mean. The birth rate was above the provincial average in ten districts, and in every district the births were more numerous than the deaths. The highest district birth rates were 65.41 per thousand in Damoh, 62.69 in Saugor, and 59.89 in Yeotmal, and the lowest was 46.08 in Balaghat.

In rural areas the mean birth rate was 54.21 compared with 40.93 in the towns. The mean percentage of male to female births was 104.03, the only wide departure from the mean being 112.92 in Burhanpur.

The deaths recorded numbered 457,081 and the death rate was 38.12 per thousand, compared with 41.70 in 1907, and 37.91, the mean of the previous five years. In the districts the rates ranged from 42.40 per thousand in Bilaspur to 22.42 in Bhandara. The rural death rate was 38.16 compared with 37.74 in the towns. Muhammadans died at the rate of 36.84 and Hindus at the rate of 32.67 per thousand, while "other classes," of which the population numbers nearly a million and a half, died at the rate of 76.0. It is probable that the death rate of Hindus is reduced and that of "other classes" increased by the deaths of members of castes included in the census population as Hindus being registered among "other classes."

The death rate among male infants was 279.88 and among female infants 252.11 per thousand born during the year.

84. The number of births registered during 1908 was 1,192,136, and the birth rate was 32.4 per thousand, which is the highest yet recorded, and is 1.6 and 1.3 higher than the rate registered in 1907 and the five years' mean, respectively. In 18 districts the rates were higher than in 1907, and they were lower in five including Guntur,

Madras.

where, for some reason which the provincial Sanitary Commissioner failed to discover, the birth rate fell from 37·3 in 1907 to 21·6 in 1908. He attributes this and other variations in the birth rate to variations in the quality of registration. In the districts the birth rates ranged from 39·3 per thousand in the urban district of Madras, and 37·4 in Chingleput to 21·6 in Guntur. In urban areas the mean birth rate was 33·6, or 1·3 per thousand higher than the mean in rural areas. The mean percentage of male to female births was 104·9. In the towns the mean percentage was 106·8, or 2·2 per thousand higher than in rural areas.

The deaths registered in 1908, owing to the unusual prevalence of cholera, outnumbered the total of 1907 by 77,903, and the death rate was 26·2 per thousand, compared with 24·3 in 1907 and 23·6 the quinquennial mean.

The highest district rate was 44·1 per thousand in Madras town, and the lowest 15·6 (compared with 20·4 in 1907) in Guntur. In the other districts the rates ranged from 39·0 in Malabar to 19·3 in Madura. In rural areas the mean death rate was 25·3, compared with a mean of 32·3 in the towns, among which exceptionally high rates were registered in Calicut (70·8), where the death rate from cholera was 29·7 per thousand; in Badagara (66·3), another Malabar town, in which the cholera death rate reached the enormous figure of 49·5 per thousand; and in Razam (63·0), a small town in Vizagapatam, in which cholera caused 153 deaths, equal to a death rate of 30·0 per thousand.

Muhammadans died at the rate of 31·7 per thousand and Hindus at the rate of 25·9, while Native Christians and "other classes" died at the rates of 22·1 and 17·5, respectively.

The death rate of male infants was 193·8, and of female infants 173·1 per thousand born during the year, respectively. Boys and girls between one year and five years of age died at the rates of 34·0 and 32·3 per thousand of the census populations at these ages. At all age periods, save 15-20 and 20-30, the death rates of the males were the higher, the means for the sexes being 27·1 per thousand among males and 25·2 among females.

85. In the small province of Coorg the births numbered 4,365, and the birth rate was 24·17 compared with a five years' mean of 24·75 per thousand. In the districts the rates ranged from 37·04 in Padinalknad to 17·44 in Mercara, the mean percentage of male to female births being 101·43.

The recorded deaths totalled 6,311, equal to a death rate of 34·94, compared with a quinquennial mean of 29·74. Among the districts the highest death rate was registered in Padinalknad, 38·85, and the lowest in Mercara, 32·25.

Male and female infants died at the rates of 279·34 and 249·65 per thousand born during the year. Save in the age periods 10-15 and 20-30 the death rates of males were higher than those of females, the means for the sexes being 34·86 and 35·05 per thousand among males and females, respectively.

86. The number of births registered in the Bombay Presidency in 1908 was 660,201, or 49,668 more than in the preceding year; and the birth rate was 35·72 per thousand, the highest since 1899. The highest district birth rates were recorded in West

Khandesh (56·53), East Khandesh (51·12) and Ahmednagar (48·28), and the lowest in the Sind districts of Thar and Parkar (21·29), Upper Sind Frontier (17·70) and Hyderabad (16·72). The mean rural birth rate was 36·92 per thousand, compared with a mean of 26·32 in the towns.

During the year 1·56 per cent of the births were registered as still-born, a figure which the provincial Sanitary Commissioner thinks much understated, instancing in support of this view the great variation in the percentage in different places—9·04 in Bombay, 5·25 in Kanara, less than 1 per cent in half the districts, including ·09 in Ahmednagar.

The mean percentage of male to female births was 107·92, ranging from 139·28 in Upper Sind Frontier to 101·92 in West Khandesh.

The number of deaths registered was 501,838, the lowest number since the appearance of plague, and the death rate was 27·15 per thousand, compared with 32·82 in 1907, and 37·0 the mean of the previous five years. Excluding the urban district of Bombay, where the death rate was 39·47 per thousand, the highest death rates were recorded in Ahmedabad (38·44), Broach (36·85), and Kanara (33·95); the lowest death rates were recorded in Thar and Parkar (18·40), Hyderabad (17·49) and Upper Sind Frontier (16·39). In rural circles the mean death rate was 25·10 compared with 37·50 in the towns, among which exceptionally high rates were registered in Dharwar, 59·29 (plague 30·10), Ahmedabad 56·54 (plague 2·80, fevers 24·26, respiratory diseases 11·52) and Karachi, 56·11 (plague 24·59).

Of the different sects by far the highest death rate was registered among "other classes," 58·50 per thousand, but the details of the figures show that in some districts these deaths were erroneously classified. Hindus died at the rate of 28·67 per thousand, Muhammadans at the rate of 21·32, and Christians, Parsees and Jains at the rates of 23·39, 23·94 and 20·42, respectively.

Calculated upon the numbers born during the year, the death rate of male infants was 191·85 per thousand and of female infants 178·70. Special enquiries into the mortality among infants were made in Bombay City, where 12,797 births out of 20,166 registered were verified by nurses. It was found that 53·5 per cent of the children were born in a healthy condition; 10·9 per cent were still-born; 15·2 per cent died within thirty days of birth, mostly of "debility." The chief causes of death of infants who survived 30 days were respiratory affections, diseases of the nervous system, bowel complaints, measles and small-pox. The remedies suggested by the Health Officer to the Municipality are the provision of lying-in-hospitals, the education and licensing of midwives, and the establishment of municipal milk depots where pure milk would be sold at a low price.

Boys and girls between the ages of one year and five years died at the rates of 49·01 and 46·53 per thousand of the census populations at these ages, respectively. In the age periods 5-10, 10-15, 15-20, and 20-30 the death rates of females were higher than those of males, but at the more advanced age periods males died at higher rates than females. The general death rate of males was 27·56 and of females 26·83 per thousand.

87. The number of births registered in 1908 was 189,667, and the birth rate was 34·06 per thousand compared with 32·65 in the previous year and 33·12 the quinquennial mean. In the districts the rates ranged from 42·63 in Thayetmyo to 27·17 in Bassein. The mean rural birth rate was 35·20 compared with 26·28 in the towns. The percentages of male to female births varied between 115 in Akyab and 101 in Kyaukpyu, Tharrawaddy and Tavoy, the provincial mean being 107.

The recorded deaths numbered 156,259, and the death rate was 28·06 per thousand, 1·22 per thousand higher than that of the previous year and 3 per thousand higher than the quinquennial mean, the excess being due to cholera, bowel complaints and plague. Among the districts the highest rates were registered in Rangoon, an urban district, (41·59), Prome (34·29) and Tharrawaddy (33·45), and the lowest in Maubin (20·71) and Akyab (20·69). In rural circles the mean death rate was 25·94, compared with 42·56 in the towns, among which death rates over 70 per thousand were registered in Zigon (75·90), Prome (72·77) and Toungoo (71·23), a large proportion in each case being due to plague.

The highest death rate occurred among "other classes", but there were evidently errors in classification. Hindus died at the rate of 30·99 per thousand, Buddhists at the rate of 27·95, Muhammadans at the rate of 23·13, and Christians at the rate of 21·85.

Male infants died at the rate of 222·8 and female infants at the rate of 178·9 per thousand born during the year. Boys and girls between the ages of one year and five years died at the rates of 32·84 and 29·23 per thousand of the census populations at those ages, respectively. At all age periods the male death rates were the higher, the mean death rates of the sexes being 29·54 among males and 26·39 among females.

88. In Upper Burma the number of births recorded rose from 96,699 in 1907 to 105,960 in 1908, and the birth rate from 33·14 per thousand to 36·32. In the districts the rates ranged from 45·72 in Shwebo to 28·21 in Sagaing. In rural circles the mean birth rate was 36·75 compared with 32·91 in the towns, among which the highest rate, 61·31, was registered in the little town of Yenangyaung in the neighbourhood of the oil fields, and the lowest rate, 13·88, at Maymyo, the hill station, in which the proportion of females is small. The percentage of male to female births was 106.

The number of deaths recorded was 83,200, and the death rate was 28·52 per thousand compared with 26·13 in 1907 and 23·09 the mean of the previous five years. The district death rates ranged from 43·26 per thousand in Kyaukse to 18·76 in Sagaing. In rural circles the mean death rate was 27·21, and in the towns, in some of which cholera or plague was severe, the mean was 38·80. Muhammadans, Hindus and Buddhists died at the rates of 32·05, 31·02 and 28·44 per thousand, respectively, "other classes" and Christians at the rates of 43·81 and 19·40.

Male infants died at the rate of 237·83 and females at the rate of 205·53 per thousand born during the year; and boys and girls between the ages of one

year and five years at the rates of 35·30 and 33·70 per thousand of the census populations at these ages.

At all age periods, except 20-30 and 30-40, the death rates of males were the higher, the general death rate of males being 30·26 per thousand and of females 26·95.

89. In Ajmer-Merwara the number of births registered was 20,261, and the birth rate was 42·48 per thousand compared with 31·20 in 1907 and a quinquennial mean of 32·09. In Merwara the birth rate was 54·13 and in Ajmer 39·02, the percentages of male and female births being 113·05 and 115·35, respectively.

The deaths recorded totalled 19,093, and the death rate was 40·03 per thousand, compared with 29·63 in the previous year and a mean of 30·49 in the previous five years, the increase in the death rate being mainly due to the great prevalence of fever. In Ajmer the death rate was 41·15 and in Merwara 36·26, the rural death rate being 35·34 compared with a mean of 52·60 in the towns, among which by far the highest death rate was registered in Ajmer suburb, where small-pox was epidemic, fever was exceedingly prevalent and dysentery and diarrhoea caused an exceptionally high death rate (12·96).

Male infants died at the rate of 260·28 and female infants at the rate of 267·22 per thousand born during the year ; and boys and girls between the ages of one year and five years at the exceptional rates of 166·53 and 169·80 per thousand of the census populations at those ages, respectively. In the age period 5-10 and from the age of 40 onwards the male death rates were the higher, but owing to the great excess of female mortality at the earlier ages the general death rate of females (41·50) was considerably higher than that of males (38·72).

SECTION VI.

GENERAL POPULATION.

HISTORY OF THE CHIEF DISEASES.

90. The accompanying table shows at a glance the number of deaths, and the death rates per thousand of population, recorded in British territory in India during each of the five years from 1904 to 1908. On comparing the figures for the year under review with those for the previous year it will be seen that in 1908 there was a considerable increase in the number of deaths

Years.	Cholera.	Small-pox.	Fevers.	Dysentery and Diarrhœa.	Plague.	All causes.
1904	192,835	55,232	4,093,981	240,655	940,609	7,436,472
	'85	'24	18'09	1'06	4'16	32'86
1905	441,786	70,962	4,417,655	264,124	940,821	8,117,771
	1'96	'31	19'57	1'17	4'17	35'96
1906	690,519	109,583	4,452,842	298,117	300,355	7,852,330
	3'05	'48	19'69	1'32	1'33	34'73
1907	408,102	103,988	4,464,881	282,191	1,166,223	8,399,623
	1'81	'46	19'76	1'25	5'16	37'18
1908	591,725	170,694	5,424,372	285,921	113,888	8,653,007
	2'61	'75	23'96	1'26	'50	38'22

attributed to cholera and small-pox, a small increase in the number under dysentery and diarrhœa, and an increase of nearly one million in the number attributed to fevers. Fortunately the number of deaths from plague decreased very greatly, but from all causes taken together there were recorded in British territory 253,384 more deaths than in 1907. As a result of the great decline in plague the deaths until the end of May were less by more than half a million than during the corresponding period of the previous year, but in June the increase of cholera and small-pox more than counterbalanced this advantage and after a temporary decline of mortality during August the terrible epidemic of malaria in the United Provinces and the Punjab caused the mortality for the last quarter of the year to exceed that for the last quarter of 1907 by nearly 700,000.

91. The number of deaths from cholera recorded in British territory during 1908 was 591,725, equal to a death rate of 2'61 per thousand of the total population under registra-

Cholera in India in 1908.
Appendix A to Section VI.

tion. The rate has been exceeded only five times during the last 32 years. If the deaths recorded in the native states from which returns were received are added (Statement I), the total amounts to 600,578. In the previous year 408,102 deaths from cholera were recorded in British territory, giving a ratio of 1'81 per thousand of population. The widespread nature of the epidemic is indicated by the fact that the Bombay Presidency, Eastern Bengal and Assam and Coorg were the only provinces in which there was a decrease in cholera mortality during 1908. The greatest numbers of deaths and the highest death rates from the disease were recorded in Bengal, the Madras Presidency, the United Provinces of Agra and Oudh and Eastern Bengal and Assam.

As in 1907 cholera was prevalent throughout the year in all provinces except the Punjab, the North-West Frontier Province, Ajmer-Merwara and Coorg, but as usual, the seasonal prevalence of the disease did not correspond in the different provinces : in Lower Burma and Eastern Bengal and Assam the greatest number of deaths occurred in April, in Upper Burma in October, in Bengal in June, in the United Provinces in September, in the Punjab, the Central Provinces and Madras in August, in the North-West Frontier Province in May, and in Bombay in July ; and fewest deaths occurred in December in Lower Burma, Bengal and the North-West Province, in January in Upper Burma and the Central Provinces and Berar, in October in Eastern Bengal and Assam and Bombay, in March in the Punjab, in February in Coorg, and in November in Madras.

Some remarks upon recent investigations in connection with cholera will be found in section IX.

92. In Bengal in 1908 the total number of deaths recorded as due to cholera was 268,908—which with the exception of the number in 1900 was the highest ever recorded—or 5·32 per thousand of population, as compared with 205,702 or 4·07 per thousand in 1907, and 157,413 or 3·11 per thousand, the average for the five years 1903—1907. Every district in the province was affected, and 523 out of 529 registering circles against 500 in the preceding year. The highest mortality was recorded in the Balasore district of the Orissa division where 28,070 persons, or 26·20 per thousand of the population, died from this cause; next in order came Puri with 14,636 (14·41), Palamau with 7,228 (11·66), Gaya with 22,216 (10·78) and Birbhum with 9,183 (10·17). Ranchi which was the least affected of all the districts last year now occupies the ninth place. In only one district, Darjeeling, was the rate (·38) below 1 per thousand. The disinfection of wells with permanganate of potash was carried on in about 19 districts where cholera prevailed.

The months of greatest prevalence were June, May and April and the months of least prevalence December and November.

The towns in which the highest death rates from cholera were recorded were Dumka in the Sonthal Parganas district (36·42), Asansol in Burdwan (23·88), Tikari in Gaya (16·46), Samastipur in Darbhanga (15·05), Dainhat in Burdwan (12·99), Suri in Birbhum (12·77), Garulia in 24-Parganas (12·16), and Nadia (11·21). In rural areas the highest death rate (52·35 per thousand) was recorded in Soro (Balasore).

Among the European seamen of the port of Calcutta there were four deaths from cholera, and there were 131 among the native floating population.

93. The number of deaths attributed to cholera in Eastern Bengal and Assam during 1908 was 59,329, equal to a ratio of 1·99 per thousand of the census population, as compared with 77,181 deaths or a ratio of 2·58 in 1907. April and May were the months of greatest prevalence and the fewest number of deaths occurred in October. The highest death rates were recorded in the districts of Darrang (9·05), Sibsagar (8·85), Nowgong (6·52), and Cachar in the Surma Valley (5·23); and among the Eastern Bengal districts Bakarganj recorded the highest ratio (3·58). The provincial Sanitary Commissioner reports that the outbreak in the two first named districts was due to the repeated importation of new sources of infection

both by steamer and railway between the months of January and June. The District Board of Rungpur have introduced the practice of keeping phials of permanganate of potash at every *thana*, for free distribution, to disinfect the water in case of an outbreak of cholera, and the salt is reported to be in great demand.

In towns the highest death rates were recorded in Tezpur (23·18) and Golaghat (13·14), and in rural areas in the Gohpur Circle of Darrang (31·98) and in the Sonari circle of Sibsagar (22·19).

The death rate from cholera among the tea garden population in Assam was 5·34 per thousand. It is said that during the first half of the year an unusually large number of labourers were imported into the tea districts from areas where scarcity prevailed and that since many of these labourers suffered from cholera the infection was spread broadcast.

94. The total number of deaths from cholera recorded in the United Provinces was 83,544, equal to a ratio of 1·75 per thousand of population, as compared with 22,438 and a ratio of ·47 in 1907. The average death rate of the preceding quinquennium was 1·46. The greatest number of deaths occurred in September and the smallest number in February. All districts were affected, but in Jhansi, Dehra Dun, and Etawah the numbers of deaths returned were only 7, 21 and 37, respectively. The districts with the highest death rates were Kheri (7·54), Garhwal (6·80), Pilibhit (5·96), Mirzapur (5·30), Shahjahanpur (4·66), Bahraich (4·62) and Bareilly (4·16). The highest death rates from this disease recorded in towns were 12·45 in Nanpara (Bahraich), 11·24 in Basti, 8·60 in Ghaziabad, 8·02 in Bahraich and 7·35 in Kairana. Of the 105 towns with a population of 10,000 or more, no death from cholera was reported in 21, while in 32 of the remainder the number did not exceed ten. Both the urban and rural mortality were considerably higher than in the previous year, the rates being 1·27 and 1·79 against ·41 and ·47, respectively.

95. In the Punjab the total number of deaths recorded as due to cholera was 12,297 (0·61 per thousand of the population) against 437 (·02) in the previous year and 0·22 the mean of the quinquennial period ending with 1907. With the exception of the district of Simla, where only one imported fatal case occurred, every district in the province was affected, and deaths were recorded in 76 towns and 1,085 villages. No deaths were reported to have occurred during January, February and December, and only one was reported in March. August was the month of maximum prevalence when 2,520 deaths were registered. The largest number of deaths occurred in the Lahore district (1,556), Gurgaon coming next (1,251), and the lowest in Simla (one death only), and Montgomery (32 deaths). The highest death rates were registered in Jhelum (2·21 per thousand of the population), Rawalpindi (1·94), Mianwali (1·78), and Gurgaon (1·68) and the lowest ·03 in Simla, 0·07 in Montgomery and 0·14 in Muzaffargarh. Of the 143 municipal towns in the province, those in which the highest death rates were recorded were Lieah (19·48 per thousand of population), Kasur (12·03), Fazilka (8·70), Narowal (8·59), Rewari (8·46) and Rupar (8·33).

96. In 1907 there were 266 deaths from cholera recorded in the North-West Frontier Province, but in 1908 the number rose to 2,845, the highest since 1901. The first case

was reported in April in Peshawar city, the patient being a man from Hurdwar, who had been attending on a friend suffering from the disease; shortly afterwards several more cases occurred and the whole district was soon affected. Bannu was the next district attacked and in this district, except in one or two villages where waterborne epidemics were reported, the disease continued in sporadic form from May till November. In May, owing to importation from outside, the districts of Hazara, Kohat and Dera Ismail Khan were affected.

97. In the Central Provinces and Berar the total number of deaths recorded as due to cholera was 9,048 or '76 per thousand of the population, as compared with 4,291 or '36 per thousand in 1907. Of the total number in the year under review, 8,790 deaths (equal to a ratio of '95 per thousand of the population) were recorded in the Central Provinces, and 258 ('09 per thousand of the population) in Berar. Of the 20 districts in the Central Provinces, four only, *viz.*—Saugor, Damoh, Burhanpur and Betul, were free from the disease; of the sixteen affected districts, Raipur with 1,899 deaths, Bilaspur with 1,712, Drug with 1,450 and Nagpur with 1,212 suffered most. In Berar all four districts were affected. In the province as a whole the months of greatest prevalence were August, September and October, and those of least prevalence January (in which only nine deaths were reported), February and March. The provincial Sanitary Commissioner considered that in many instances the spread of infection was favoured by the gathering together of large parties at fairs and during the marriage season and the harvest.

98. In the Madras Presidency in 1908 there were 141,970 deaths recorded as due to cholera, giving a ratio of 3'9 per thousand of the population, as compared with a total of 81,565 and a ratio of 2'2 per thousand in 1907. All the districts in the Presidency were affected and the disease was present throughout the year in 18 of the 23 districts. The highest death rates recorded in districts were 9'9 in Malabar, 8'5 in Anantapur, 7'4 in Kurnool, 5'7 in Ganjam, 5'1 in Cuddapah, 4'3 in Tinnevely and 4'0 each in Kistna and South Arcot. In the Nilgiris district only 25 deaths were recorded, the Madras district coming next with 1,172 deaths. The months of greatest prevalence were August and July in which no fewer than 25,685 and 19,956 deaths, respectively, occurred, and the lowest numbers of deaths (6,079 and 7,036) were recorded in November and October.

The highest death rates from cholera recorded in towns were 29'7 in Calicut 23'7 in Tellicherry, 18'5 in Nandyal and 16'4 in Cannanore; while Kodaikanal, Coonoor and Ootacamund were practically free from the disease. Out of 43,133 towns and villages in the Presidency, deaths from cholera were reported from 11,286 as against 6,430 in 1907.

Favourable reports were received in regard to the use of permanganate of potash for the purification of contaminated sources of water-supply.

99. In the Bombay Presidency there were recorded as due to cholera 1,759 deaths, equal to a ratio of '09 per thousand of the population, as compared with 7,656 deaths or a ratio of '41 per thousand in 1907. During the last twenty years the mortality from this disease has never been lower. Of the 26 districts, twelve were entirely

free from the disease, and seven others were only slightly affected. The highest death rates were recorded in the districts of Kanara (1·10 per thousand of population) and Karachi (1·09). More than half the deaths occurred during June, July, and August.

100. In Lower Burma during 1908 there were recorded as due to cholera 9,336 deaths, equal to a ratio of 1·68 per thousand of population, as compared with 7,964 deaths or 1·43 per thousand from the same cause in 1907. Deaths from cholera were recorded during each month of the year, the highest number occurring in April and the lowest number in December. The districts with the highest death rates were Kyaukpyu (5·83), Toungoo (3·93), Sandoway (3·17), Tharrawaddy (3·10) and Myaungmya (3·02); in towns the highest death rates were 16·08 in Zigon, 15·60 in Toungoo, 13·86 in Myanaung, 12·88 in Paungde and 12·83 in Pyapon.

In Upper Burma the total number of deaths recorded as due to cholera during 1908 was 2,575, equal to a ratio of ·88 per thousand of population, as compared with 414 or ·14 per thousand from the same cause in 1907. Two out of the 11 districts were entirely free from the disease and in one (Mandalay) there were only 47 deaths. Deaths from cholera were reported during each month of the year; the highest number occurred in July and the lowest number in January. In districts the highest death rates per thousand of population recorded were 3·19 (786 deaths) in Magwe, 2·98 (721 deaths) in Yamethin, and 2·64 (515 deaths) in Minbu; in towns the highest death rates were 28·11 in Taungdwingyi, 9·73 in Pynmana, 7·96 in Minbu and 6·80 in Meiktila.

The prevalence of the disease in all cases was attributed to the contamination and pollution of the sources of the water supply.

101. No death from cholera was recorded in Ajmer-Merwara during 1908, as compared with one death in 1907 and 284 deaths in 1906. During the years 1903 to 1905 no deaths from this disease were recorded.

102. In Coorg 114 deaths from cholera were recorded during 1908, giving a ratio of ·63 per thousand of population, as compared with a total of 187 deaths and a ratio of 1·04 per thousand in 1907. This small province had been entirely free from the disease in the four years prior to 1906.

103. From the marginal statement in the first paragraph of this section it will be seen that in British territory in India the death rate per thousand of population from small-pox rose from ·46 in 1907 to ·75 in 1908. The mean ratio for the quinquennial period from 1903 to 1907 was 0·37. The total number of deaths recorded from this disease during 1908 was 170,694 against 103,988 in 1907 and 109,583 in 1906. The death rates during 1908 were higher than in 1907 in all provinces except Lower and Upper Burma, the North-West Frontier Province and Coorg, the increase being greatest in the Punjab, the United Provinces of Agra and Oudh, Ajmer-Merwara, and the Central Provinces and Berar, while in the Madras Presidency the rate remained unchanged. The small-pox mortality recorded in towns (0·76) was almost the same as that in the rural areas (0·75); and the

Small-pox. Table I of Appendix B to Section VI.

deaths of children under ten years of age amounted to 70·61 per cent. of the total number of deaths from this cause.

In Bengal the number of deaths from small-pox rose from 29,066 (·57 per thousand) to 35,966 (·71 per thousand) in 1908; the mean death rate during the quinquennial period ending with 1907 was ·37 per thousand. Among the districts with the highest mortality, Gaya stood first with a death rate of 3·24 per thousand of population, followed by Patna with a ratio of 3·11, while Puri which stood first last year (with a ratio of 2·95) now occupies third place with a ratio of 1·45 only. The provincial Sanitary Commissioner states that the smaller mortality in Puri is evidently the result of the special measures adopted for pushing vaccination there. The districts of Purnea, Nadia, Jessore, Khulna and Darjeeling remained practically free, the death rates in them being below ·1 per thousand. In towns 2,903 deaths and in rural areas 33,063 deaths from small-pox were registered as compared with 3,366 and 25,700, respectively during the previous year. Among children under one year and from one to ten years of age the mortality was higher than in 1907.

In Eastern Bengal and Assam during 1908, small-pox caused 9,373 deaths, equal to a death rate per thousand of ·31 against 8,693 deaths and a ratio of ·29 in 1907. The highest rates per thousand of population in districts were reported from Darrang (3·89), Kamrup (2·87) and Nowgong (2·04) in the Assam Valley. In the remaining 19 districts the rate recorded was lower than 1·0 per thousand of population. In towns the highest death rate (2·96) was recorded in Golaghat, and for the first time on record, in the town of Barpeta, which is said to be the focus of small-pox in the Assam Valley, the mortality fell to ·09. This is said to have been due to the vaccination of nearly all the susceptible children. In Cachar, the best vaccinated district in the province, only 4 deaths were reported.

In the United Provinces in 1908, there were 59,996 deaths from small-pox against 22,645 in 1907 and 13,202 in 1906, the corresponding rates being 1·26, ·47 and ·28 per thousand of population, respectively. The average rate for the quinquennial period was ·29. The highest number of deaths occurred in May and the lowest in October. The highest death rate in districts was again recorded in Partabgarh (5·79), followed by Sultanpur with 5·32, Gonda (3·88), Hardoi (2·86) and Moradabad (2·78). Two districts, Jhansi and Jalaun, were practically free from the disease, and in Garhwal and Dehra Dun the number of deaths did not exceed ten. No death from small-pox was recorded in 27 of the 105 towns with a population of 10,000 and upwards, while in 34 the number did not exceed ten.

In the Punjab 28,652 deaths from small-pox, equal to a ratio of 1·42 per thousand, were registered during the year, as compared with 11,082 deaths and a ratio of ·55 in 1907, and 0·54 the mean ratio during the preceding quinquennium. The highest rates in districts were 5·04 in Lyallpur, 3·24 in Lahore, 2·58 in Ferozepore, 2·52 in Sialkot and 2·12 in Montgomery. The highest mortality was registered in June (5,227 deaths), May coming next with 5,057 and the lowest was in December, when only 399 deaths occurred. The death rates in the four largest towns were 3·00 in Lahore, 2·84 in Multan, 2·60 in Amritsar, and 0·37 in Delhi. The death rate in towns in which vaccination is compulsory was 1·71 compared with 2·44 in those in which it is optional.

In the North-West Frontier Province the number of deaths recorded as due to small-pox fell from 769 ($\cdot 40$ per thousand) in 1907, to 734 ($\cdot 38$ per thousand). By far the largest number of deaths (586) occurred in the Peshawar district, in which, as also in the Hazara district, the disease prevailed during every month of the year. The Bannu district was practically free from the disease (2 deaths only), while the Kohat and Dehra Ismail Khan districts were affected to a very slight extent (13 and 29 deaths, respectively). The months of greatest prevalence in the province as a whole were January and February.

In the Central Provinces and Berar there were 9,044 deaths from small-pox, equal to a ratio of $\cdot 75$ per thousand of population, as compared with 3,826 deaths and a ratio of $\cdot 32$ in 1907. April and May were the months in which the disease was most prevalent. Of the total number of deaths, 6,663 occurred among children under ten years of age. The largest numbers of deaths were reported in the Raipur (2,506), Bilaspur (2,377) and Drug (1,221) districts, all of which are in the Mahanadi division.

In Burma there was a considerable decrease in the mortality from small-pox during the year, the total number of deaths being 1,298 against 2,882 in 1907, and 8,540 in 1906. The highest mortality occurred in April and May and the lowest in November. The highest death rates were recorded in the Kyaukpyu and Pyapon districts in Lower Burma and the Pokokku and Myingyan districts in Upper Burma. During the year, two important Vaccination Acts were introduced by the local Government. The first has for its object the prohibition of inoculation in rural areas and the second is for the improvement of the facilities for enforcing compulsory vaccination among the occupants of lodging houses and among immigrant coolies in Rangoon.

In the Madras Presidency small-pox accounted for 22,204 deaths ($\cdot 6$ per thousand of population) against 22,455 ($\cdot 6$ per thousand) in 1907. All the 23 districts were more or less affected, the highest death rates recorded per thousand being in Vizagapatam (1·8), South Arcot (1·6), North Arcot (1·4) and Malabar (1·3); in the other districts the rate was below 1 per thousand. Of the 61 municipal towns, 18 were free from the disease and in the remaining 43 a total of 928 deaths was registered. The highest rates recorded were 6·8 in Palghat, 3·2 in Ellore, 2·3 in Rajahmundry and 2·2 each in Guntur and Tiruvannamalai. The death rate in towns was $\cdot 3$ and in rural areas $\cdot 6$. The months of greatest prevalence were March and April.

In the Bombay Presidency the number of deaths from small-pox recorded during 1908 was 2,526 ($\cdot 14$ per thousand) against 1,862 ($\cdot 10$ per thousand of population) in 1907. Three only out of the 26 districts were entirely free from the disease. Deaths were reported from 145 of the 289 registration circles in the Presidency, but the incidence of the disease was heaviest in Bombay City, the Western, Central and Southern Registration districts, and in two Collectorate of Sind, while Gujarat and the greater part of Sind remained practically free. The months of greatest prevalence were, as usual, March and April. Of the total number of deaths, 666 occurred among children under one year of age.

In Ajmer-Merwara 863 deaths (1·81 per thousand) from small-pox were recorded during 1908 as compared with 497 (1·04 per thousand) in 1907.

In Coorg the number of deaths reported as due to this disease was 38 against 211 in the previous year.

104. The absence of the usual winter rise in plague mortality during 1907 enabled the prediction to be made that a great decline in the prevalence of the disease would occur in 1908. This prediction has been abundantly fulfilled, for the number of deaths recorded throughout the country fell from 1,315,707 to 156,480, the smallest total since 1900.

In the British Provinces the number of plague deaths registered was 113,888, which is less than half the number recorded under respiratory diseases and less by about 172,000 than the number recorded as due to dysentery and diarrhœa. The course of the epidemic differed from that of the last four years in that the maximum prevalence was attained in March instead of in April. The decline from April to July, when fewest deaths were recorded (only 1,630), was very rapid and the autumnal rise slight. As in 1905 and 1907 the disease, instead of increasing greatly in prevalence during November and December, remained at a low level, which indicated that the year 1909 would again experience only a comparatively mild epidemic. In the Native States the number of deaths aggregated 42,592, which is considerably less than one-third the mortality recorded in 1907, the decrease being especially marked in the monthly totals from February to May.

The mean death rate from plague in the British Provinces was .50 per thousand compared with 5.16 in 1907, the decrease being common to all provinces except Madras, in which the rise was very slight, and the small areas of Ajmer-Merwara and Coorg in which the numbers of deaths were considerably below 100 in both years. It was greatest in the Punjab where the rate fell from 30.57 per thousand in 1907 to only 1.53 and in the United Provinces where the rate fell from 6.90 to .48.

In the city of Calcutta the mortality fell from 3,591 to 1,779, in Bombay from 6,379 to 5,348 and in Madras from 3 to 2.

105. Among the subjects investigated since the last issue of this report one of the most important concerns the factors upon which the annual reappearance of the disease in epidemic form depends. The researches of the Plague Commission, a summary of which was given in this report for 1906, led to the conclusion that during the non-epidemic season a few cases of acute plague in rats and human beings still continue to occur in certain towns and villages of the Punjab, and that when the seasonal conditions favourable to an epizootic and epidemic again come round the prevalence of the disease rapidly increases in those centres which then become foci from which infection is conveyed in rat fleas to other places. It appears that so far as this statement goes it is agreed to be correct by all observers, but that if it is put forward as affording a complete explanation of the annual epidemic there will be a number of dissentients. That the view affords a complete explanation of the annual epidemic in the Punjab has been called in question especially by Major Browning Smith, I.M.S.,* chief plague medical officer in that province. He agrees that in a very few localities cases of acute plague

* Transactions of the Bombay Medical Congress, 1909, page 136.

continue to occur during the inter-epidemic period and that the spread of infection from those places is one factor concerned in the annual widespread epidemic, but he considers that this is a quite insufficient explanation of the yearly sudden, almost simultaneous, reappearance of the disease in a large number of localities which have been completely free for many months from any discovered sign of acute plague in either rats or man. In a number of these places no evidence that the disease has been reintroduced by importation can be obtained, and Major Smith considers therefore that its reappearance must be due to a renewed activity or "recrudescence" from causes which are as yet unknown but are inherent in a locality that has once been infected. The investigation upon the results of which his view is based related to 277 localities. Evidence of the persistence of cases of plague in animals or man throughout the inter-epidemic period was obtained in only eleven of these and evidence that the reappearance of the disease was, or might have been, due to fresh importation in 140. In the remaining 126 localities it appeared to Major Smith that the reappearance of the disease could be accounted for only on the view of recrudescence in the absence of fresh importation. Evidence of a similar nature has been brought forward by Dr. Colvin* with the object of showing that of three small outbreaks of plague in Glasgow and of two in Liverpool between 1900 and 1908 only the first in each city respectively was due to importation, the others having arisen, according to Dr. Colvin, from renewed activity of an infection which, in spite of the great efforts made to destroy it, had remained latent in an undiscovered (and presumably not easily discoverable) form since the first outbreak. The subject is of considerable importance in connexion with prophylaxis. If the yearly widespread epidemic results from the new lighting up in a large number of villages of the embers of infection remaining from a previous epidemic it is exceedingly difficult to devise measures that will promise an effective extirpation of the disease, but if in the great majority of places the annual outbreak is due to fresh importation from an insignificant number of localities which, on account of the continued occurrence of cases of plague in rats or man can be identified without difficulty, the measures by which the disease might be successfully stamped out are sufficiently obvious. The problem has been studied in detail by the Plague Commission but until the publication of their report, which is now in the hands of the Advisory Committee for plague investigation in India, it is necessary to suspend judgement upon it.

106. In 1908 the total number of deaths from plague in Bengal was 15,948.

Plague in Bengal.

The number gives a ratio of '31 per thousand of population, against 1'65 in 1907. Thirteen out of the 33 districts were entirely free from the disease, in two the death rate was higher, in 25 it was lower and in six it was the same as in the preceding year. The district in which the highest death rate was recorded was Calcutta (2'09), and Patna, which headed the list last year, came second, (1'25 against 13'45), followed by Monghyr (1'22) Shahabad (1'03) and Saran ('97). As regards towns, the highest rates were 21'47 per thousand, in Roserah, 18'67 in Monghyr, 12'61 in Hajipur, 11'87 in Jagadispur, 8'92 in Bhagalpur and 8'12 in Jamalpur. In none of the rural areas did the disease prevail in epidemic form. The months of greatest prevalence were March (6,001 deaths) and February (3,351) and fewest deaths occurred in August (70) and September (99).

* Lancet, December 5th, 1908, page 1707.

107. In 1907 only eight cases of plague were reported to have occurred in Eastern Bengal and Assam, and in the year under review it enjoyed complete freedom from the disease.

108. The number of plague deaths registered in the United Provinces fell from 328,862 in 1907 to 22,878,—the lowest yet recorded—and the death rate fell from 6·90 to ·48. The month of greatest prevalence was March (7,895 deaths) and fewest deaths occurred in August (39). Females, as in previous years, suffered more than males, the death rates among the two sexes being ·55 and ·41, respectively. The highest district death rates were recorded in Muttra (3·26 per thousand), Ballia (2·34), Unao and Ghazipur (1·31 each), Mainpuri (1·10) and Cawnpore (1·07). Five (Almora, Garhwal, Sitapur, Banda and Jhansi) out of the 48 districts were entirely free from this disease. In 65 of the 105 towns with a population of and over 10,000, no death was recorded, and in 27 others the number did not exceed ten. Death rates of over 10 per thousand were recorded in Hathras (Aligarh) (15·81), Gonda (15·05), Bansodih (Ballia) (13·47) and Barhaj (Gorakhpur) (11·90). In rural areas the death rate was ·46 compared with ·70 in the towns.

109. In the Punjab only 30,708 deaths from plague were recorded during 1908 against 608,685 in 1907, when the disease prevailed with unprecedented severity. The death rate was 1·53 per thousand of population compared with 30·27 in 1907 and 16·25 the mean of the previous five years. Five (Simla, Kangra, Multan, Muzaffargarh and Dera Ghazi Khan) out of the 29 districts were entirely free, and in 13 others the death rate was below 1 per thousand of the population. The highest district death rates were recorded in Ludhiana (7·02), Gurgaon (6·75), Ferozepore (3·41), and Lahore (3·06). In towns the highest rates were recorded in Balabgarh in Delhi (26·85), Khudian in Lahore (17·94), Maini in Hoshiarpur (13·73) and Rewari in Gurgaon (13·41). The months in which the greatest mortality occurred were April and March and fewest deaths were reported in August and July. Males suffered less than females the ratios per thousand being 1·39 and 1·69, respectively.

110. In this province there were only 563 deaths recorded from plague during 1908 against 1,547 in the previous year. Of the five districts, only two—Peshawar (423 deaths) and Dera Ismail Khan (140 deaths)—were affected. The largest number of deaths occurred in May (260). No death was reported during February and only two occurred in July, after which month the disease entirely disappeared.

111. In 1908 there were only 6,236 deaths from plague in these provinces, of which 1,984 were in the Central Provinces and 4,252 in Berar. The total figure gives a ratio of 0·52 per thousand of population, as compared a ratio of 3·18 per thousand (37,774 deaths) in 1907. Of the 24 districts four, *viz.*—Damoh, Nimar, Seoni and Drug, were entirely free from the disease, and in ten others the number of deaths in each did not exceed ten. The districts of Betul (death rate 1·87), Nagpur (1·40), Amraoti (2·89) and Buldana (2·28) suffered most. No deaths from plague were reported in June, only nine occurred in July and the

highest number (1,160) was registered in October. In towns the highest rates were recorded in Karajgaon (37·42), Amraoti (29·69), Dattapur (22·94), Khamgaon (22·68) and Badnera (20·35). The death rates among males and females were 0·54 and 0·50, respectively.

112. In 1908 the number of deaths recorded from plague in the Madras Presidency was 3,358 against 2,872 in 1907. Eleven

Plague in Madras.

out of the 23 districts reported no death, and in four others the total number of deaths did not exceed ten. In the remaining eight districts, the highest death rates were recorded in the Nilgiris (1·3), Bellary (0·6) and Coimbatore (0·5). The disease was prevalent throughout the year in the districts of the Nilgiris, Salem, and South Kanara. The largest number of deaths (491) was recorded in August and the smallest (114) in June. In towns the highest mortality occurred in Cannanore (303), Mangalore (208) and Calicut (203).

113. The number of deaths from plague in the Bombay Presidency in 1908, was 27,345 (1·48 per thousand of population)

Plague in Bombay.

against 93,609 in 1907, (5·06 per thousand), the number being the lowest on record since the present epidemic became established. The highest ratios recorded in districts were 6·40 in Karachi, 5·57 in Bombay, 5·18 in Poona and 4·35 in Belgaum. The district of Thar and Parkar was entirely free from the disease and in three others—Panch Mahals, Sukkar and the Upper Sind Frontier the number of deaths reported were 9, 3 and 2, respectively. Among towns Dharwar (30·10), Kirkee Cantonment (28·62), Karachi (24·59) and Nasirabad (14·45) suffered severely. The month of greatest prevalence was March (3,776 deaths) and fewest deaths (457) were recorded in June. Males suffered more than females, the death rates among them being 1·55 and 1·40 respectively.

114. The total number of plague deaths recorded in Burma fell from 9,249 in 1907 to 6,752. Of the total, 5,169 occurred in

Plague in Burma.

Lower Burma and 1,582 in Upper Burma. The districts chiefly affected were Rangoon (4·17 per thousand), Amherst (2·22), Prome (2·14) in Lower Burma and Mandalay (3·45) in Upper Burma. In Lower Burma the highest mortality occurred in February (1,056 deaths) and the lowest in November (57 deaths). In Upper Burma the heaviest incidence also occurred in February and only six deaths were recorded in each of the months of May and August. Of the 19 districts in Lower Burma, the three in the Arakan Division, as usual, remained free, and no deaths were reported from Tavoy, Mergui and Thayetmyo. In Upper Burma, five out of the 11 districts were entirely free, and in a fourth five deaths only were recorded. In towns in Lower Burma the highest death rates were recorded in Thonza (23·72), Prome (23·60), Zigon (21·75) and Myanaung (16·53), and in Upper Burma in Pyinmana (12·30), Mandalay (6·54) and Yamethin (5·18). In rural areas in Lower Burma 646 deaths only were reported, equal to a death rate of ·13 compared with 6·37 in towns. In Upper Burma the rural death rate was ·05 compared with 4·38 in towns.

115. There were 26 deaths from plague reported in Coorg against two in 1907. Fourteen of the deaths occurred in the

Plague in Coorg and in Ajmer-Merwara.

town of Virajendrapet. The mortality was equally divided amongst males and females. In Ajmer-Merwara the number of deaths attributed to plague was 74 as compared with 13 in 1907.

116. The wave of epidemic malaria which in the autumn of the year swept over certain provinces of India was the chief distinguishing feature of 1908. The total number of deaths registered under the heading "fever" is usually remarkably constant from year to year being a little short of $4\frac{1}{2}$ millions and the mean death rate rather less than 19.5 per thousand, but in 1908 the number was no less than 5,424,372 and the death rate 23.96 per thousand. In many parts of India the heading includes nearly all the deaths that are registered, and in by far the greater part of the country the only diseases not recorded under it are those which, like cholera and small-pox, are unmistakeable by the people themselves. The crude figures are therefore of no value as an indication of the actual mortality from malaria but when the seasonal incidence of the chief epidemic diseases is known the figures enable an estimate to be made of the increase or decrease of malaria that has occurred in any particular year. Thus a comparison of the monthly fever mortality for 1908 and 1907 gives the following results. The figures for January 1908 exceeded those for January 1907 by about 15,000 and since the increase was confined to the United Provinces and the Punjab in which during that month cholera, smallpox, and plague were not prevalent we may assume that the increased mortality was due directly or indirectly to malaria contracted in the autumn of 1907. During February and March the fever mortality showed a considerable decline on that for the same months of 1907, but there was an increase of over 1,00,000 deaths during April, May and June. This increase was almost entirely in Bengal, Eastern Bengal and Assam, and Madras, and must be ascribed chiefly to cholera which during those months was prevalent to an unusually severe degree in those provinces. In July there was again a decline in the fever mortality as compared with the same month of the previous year but from August onwards an increase in each month, the greatest being in October and November when the fever deaths exceeded those for the same months of 1907 by 322,413 and 313,983, respectively. This great increase, which amounted during the last four months of the year to as many as 835,617, was chiefly confined to the United Provinces and the Punjab and must be ascribed almost entirely to the epidemic of malaria which raged in those parts of India. Some details of the results of the epidemic will be found in the paragraphs below, but before dealing with them the opportunity may be taken to state briefly a point of view from which the subject of the mitigation of malaria among the civil population of India may be approached.

117. A rough idea of the extent to which death from malaria is preventible in India may be formed from a study of the effects of the disease in the Native Army and in jails, but, of course, in any comparison of the statistics referring to soldiers and prisoners with those of the general population, we must not omit to make allowance for the age and sex constitution of the populations compared, and for the peculiarly favourable conditions in which preventive measures act among bodies of men under skilled control. The Native Army consists of picked men who, when they are with their regiments, are looked after carefully in health and skilfully tended when sick. The admission and death rates ascribed to malaria have declined in recent years, but during each of the ten years ending with 1907 it may be said that three men in every 2,000 died from its effects. Prisoners are greatly inferior to soldiers in physique and they are subject to the depressing effects and monotonous routine of jail life. Moreover, there is

a continuous flow into and through the prisons of individuals, many of them infected with malaria, taken from the lowest and poorest ranks of society. Still, far more stringent measures of prevention are possible in jails than in regimental lines, and the results are consequently better, so far as malaria is concerned. In each year of the decennium, on an average, four prisoners in each 3,000 died from malarial fever. When the deaths ascribed to malaria in the jails are closely investigated, it is found that in a considerable proportion of the cases death was due to a cause other than malaria, so that the mean death rate of the ten years, which on paper is 1·30 per thousand, is in fact only about 1 per thousand. That is to say, the death rate among prisoners from malarial fevers is about one-fifth of what it is among the general population. A comparison of a death rate among prisoners with that among the general population is misleading owing to the numbers of children and old people among the latter, but preventive measures are by no means perfect in the prisons, and perhaps we may say that if we could place all the people in fairly good hygienic conditions, give them prophylactic doses of quinine during the fever season and provide them with suitable food and skilled attendance when they are attacked, we should prevent three-fourths of the deaths from fever that now occur. This is perhaps rather speculative but our experience in prisons does show this, malarial fever properly treated is by no means a fatal disease among adults. In 1908 malarial fevers were extraordinarily prevalent and fatal in north-western India. During the year there were 20,039 cases of fever admitted into the jail hospitals throughout the country, and only 105 of those cases terminated fatally. Assuming that all the 105 died from malaria, which the *post-mortem* records show was by no means the case, this means that only one in 191 cases of fever ended in death, and this in a year when the fever was peculiarly deadly. Contrast this with the state of affairs among the general population in the United Provinces in 1908, when one person in every 24 died of fever—in that year mostly malarial. Why is it that a disease which is so rarely fatal to a prisoner should be so often fatal to a free man?

A very large fraction of the total mortality from fever among the general population occurs among children and the aged, and in epidemic years they suffer disproportionately, because in such years, for reasons which we shall presently mention, they have to suffer from privations which loosen their feeble hold on life. In the Punjab in 1908 the infantile death rate from fever was doubled and the fever death rates among children between the ages of 1 year and 10 years of age were more than doubled. While due allowance must always be made for the share of the total mortality occasioned by malaria among the very young, it seems that, in normal years at any rate, there is sometimes a danger of exaggerating it, for it is not uncommon to find practically all the deaths occurring in infancy attributed to malarial fevers. Now we know that, in temperate climates, where there is no malaria, the mortality in infancy even in favourable circumstances is high; and in a tropical or sub-tropical country with a very high birth rate, we cannot expect children to escape the effects of mal-nutrition, bowel complaints, parental ignorance and other special dangers of childhood. Again in normal years many of the deaths which result from malarial fevers are directly due to the treatment, or rather want of treatment of the cases. I do not refer to the neglect of medicinal remedies, but to the withholding of food. In this country and in some others it is an article of popular superstition that a fever should be starved, and the sufferer and his friends believe that the taking of food brings on the attack of fever. Too often it is the sufferer that is starved and not the fever.

In any place in which malaria exists meteorological conditions may determine a severe epidemic of fever, when the disease becomes not only much more common, but enormously more fatal than in ordinary years. When heavy rains precede a severe outbreak of fever, they cause floods, when large tracts of country are submerged, houses collapse, harvests are destroyed and the poorer classes of the peasantry are not only thrown out of employment, but are exposed to great privation and hardship. It is then that the mortality among children and the aged is so high—malaria, owing to the simultaneous occurrence of exposure and privation, has become a very fatal disease. These are obvious considerations, but there are others which have not yet been fully elucidated. The floods, of course, produce lasting pools of water in which mosquitoes breed, but a feature of these autumn epidemics is the suddenness of their onset, which it seems can be accounted for only by large numbers of mosquitoes being very rapidly infected.

In the towns, in India as in other countries, there are numbers of people who lead a hand to mouth existence ; ill-housed, ill-clad and ill-fed, they pick up a precarious livelihood in the unskilled labour market. Such people have unsuitable food at the best of times, and they have no savings, so that when anything occurs to check the demand for such work as they can do, the scanty coarse food becomes scantier and coarser and they and those dependent on them offer little resistance to malarial infection and readily succumb to its effects. Analogous conditions, as pointed out by Christophers and Bentley, may be artificially produced in any area in which anopheles mosquitoes can breed, when large numbers of labourers are collected in it under bad hygienic conditions. The majority of such labourers are free from infection, but are highly susceptible to it, a few are infected, and all are dependent on their daily labour for their daily bread. Infection spreads and with it the inability to earn money to pay for sufficient food, privation added to malaria determines a severe attack, attacks are repeated and here again the disease is a very fatal one.

The cause of malaria is a sporozoan parasite of which there are three species generally recognized. These parasites pass the sexual phase of their lives in certain mosquitoes and the asexual phase in the blood of man. The important fact in respect of the prevention of malaria is that in nature the parasites occur in both hosts and, so far as is known, nowhere else. Preventive measures are founded on this fact and have for their object the destruction of the insect host, the prevention of the transference of the parasites from one host to the other, or the destruction of the parasites in the blood of man. It is unnecessary to enumerate in detail the devices, which have been used to effect these objects, they may all, I think, be classified under three heads.

- (1) The extermination of mosquitoes.
- (2) The prevention of bites.
- (3) The administration of quinine.

The prevention of bites is useful as a supplement to more radical measures but, so far as this is effected by wire gauze screens and mosquito curtains, which are expensive and require careful handling, the use of the measure must be limited to the wealthier classes.

Much I believe could be effected by improving the design of living rooms and dormitories. It seems obvious that a well ventilated white-washed room will

afford less shelter during the day to mosquitoes than a dark dingy room. Anointing the body with substances offensive to mosquitoes is useful on occasion.

Of the two radical measures, one aims at the extirpation of mosquitoes by abolishing their breeding places or destroying the eggs, larvæ or mature insects; the other aims at destroying the sporozoon by the administration of quinine, and there has been much controversy regarding the merits of the two measures. It has always seemed to me to be unfortunate that so many of the writers who contribute their views on this controversy to the public press have not been at the pains to study the original accounts of the experiments on which any opinion of value must be based. The consequence of so much wild writing has been to confuse the issue, and not only the intelligent layman, but even medical men have been led astray. It is obvious, if malaria is due solely to the bites of anopheles mosquitoes, that the extirpation of these mosquitoes will abolish malaria. It will be admitted by everybody that the continuous use of quinine, even for a short time during the year, is inconvenient and unpleasant to the individual and difficult to carry out among a community. It is therefore evident that the best way to get rid of malaria is to destroy the mosquitoes. The only questions are, Can it be done? and, if it can, at what cost? It has been successfully done at Ismailia, but in conditions which were extraordinarily favourable, such as, I fear, occur very rarely, if they occur at all, in India. Ismailia was built about 35 years ago by the Suez Canal Company as a model town. It is situated on the shore of the bitter lake Timsah, with the desert behind it. The water supply is derived from the fresh water canal. In his report to the Liverpool School of Tropical Medicine, published in January 1903, Major Ross pointed out that "almost the whole of the irrigation system of Ismailia is free from larvæ and is unfavourable to their propagation," and that "the waters which really occasion malaria are the most shallow and insignificant surface pools, which could be filled up and drained away without difficulty and without detriment to cultivation or irrigation," indeed, he remarked, "mosquitoes can be extirpated with great facility at Ismailia, in fact with much greater facility than in any other town I have seen." Fever is said to have appeared in Ismailia in 1877, but it was never severe, and only three or four pernicious attacks had occurred from the commencement of the epidemic until 1902. Major Ross says "The illness does not appear to be of such a severe type as I have met with in parts of India and Africa; and no deaths have been reported." The population of the town is 7 or 8,000; the Canal Company is the controlling force everywhere; there are no prejudices to overcome; there is no lack of money; the soil is sandy and the rainfall averages less than two inches in the year. Compare these conditions with those of any malarious town in India. The Ismailia experiment proves that the extirpation of mosquitoes to a degree sufficient to abolish malaria is possible, and so far it is a valuable lesson to Indian administrators, but surely it is futile to say that because success was achieved at Ismailia it should be achieved in the same manner in Indian towns. I have said nothing of the expense.

We may now turn to a place where operations against mosquitoes were less successful—Mian Mir. This cantonment was deliberately chosen by the Royal Society's Commissioners, to whom Captain James was attached as a representative of the Government of India, (1) because malaria was prevalent in it, and (2), because it was thought that the conditions for the destruction of mosquitoes

were favourable. The Royal Society's Commissioners' experience in Africa had led them to doubt the practical value of operations against mosquitoes in the moister regions of the world, but they thought that such operations would be successful in the semi-desert conditions of Northern India. Mian Mir differs from Ismailia in most particulars, two of which are of special importance—the soil is impervious and the rainfall averages about 22 inches. The first year's (1902) operations were carried out by Captain James. His conclusion was that "mosquito destruction if it can be carried out successfully, will effectually banish malaria," and "the chief drawback to mosquito destruction is its difficulty and expense". The second year's (1903) operations were carried on by Lieutenant Christophers. His conclusions were "The destruction of anopheles within an area by attacking their breeding places is extremely difficult. Although large numbers of pools were filled up and drained, and millions of larvæ destroyed by oil, adult anopheles were still abundant."....."The mere obliteration of local breeding-places is useless. In Mian Mir almost complete absence of breeding was ensured to a distance of over half a mile, but adults still appeared in large and increasing numbers in the area."....."A distinct effect was produced upon the malaria of troops and on the endemic index of the bazars. This was, however, only evident in the beginning of the fever season, and could not be maintained."....."The failure of the operations appeared to be due to the passage of adult anopheles into the area from without."

A great deal was learned from the operations in Mian Mir. Before they were undertaken it was thought that fever carrying mosquitoes bred in still pools of water, and could fly at most for a few hundred yards. It was discovered at Mian Mir that fever carrying mosquitoes breed not only in pools, but in running water and that they can fly for half a mile; consequently such operations as can be carried out by a mosquito brigade were of very little use in Mian Mir. The critics of the operations did not, however, pause to consider matters of this kind, "Why," they said, "did you limit your operations to an area of four miles?" "What," they continued, "is the use of filling up and oiling puddles when there are channels of running water in which anopheles breed?" It seems to me that this was hardly fair.

The second phase of the Mian Mir experiment began with the extensive works undertaken by the military authorities; the results obtained are being fully examined elsewhere. Before leaving Mian Mir there is one matter to which reference must be made. It has been said that the failure of the operations at Mian Mir has led to the neglect of anti-mosquito work in India. I do not think this is the case. All the Mian Mir experiment showed was that success in operations against mosquitoes is not so easily gained as some people say, and no one who reads the excellent reports by Major Ross on the work at Ismailia and by Captain James and Lieutenant Christophers on the work at Mian Mir will deny that this is correct. During the last ten years the energies of local Governments and municipalities have been very fully occupied in dealing with plague, and less money has been available for the prevention of malaria than might otherwise have been the case. But a great deal has been attempted. If we have erred in giving too much attention to quinine prophylaxis and too little attention to mosquito destruction, we have erred in the best company. Professor Angelo Celli of Rome, whose experience is greater than that of anyone else, at any rate in Europe, finds that, although the destruction of mosquitoes is possible in the laboratory and in small areas the difficulties in extensive areas are generally insuperable.

Important information regarding malaria in villages was obtained by the Drainage Committee appointed by the Government of Bengal in 1906 to enquire into the conditions of the drainage of the Presidency Division and their connection with malaria. Captain Stewart and Lieutenant Proctor of the Indian Medical Service were the experts appointed to assist the Committee. In the districts of Jessore, Nadia and Murshidabad, they found that malaria as estimated from the spleen rates of children under 12 years of age, was, on an average, much less prevalent in villages situated on the banks of live rivers and on dry land than in villages situated on the banks of dead rivers or *bheels*, while in villages surrounded by thick jungle the spleen rate (68·8) was more than twice as high as that (26·2) in villages with little jungle around them.

The success or failure of minor operations against mosquitoes appears to me to depend upon the state of the drainage. Where drainage is perfect, as in the case of Ismailia, the inhabitants can exterminate mosquitoes with little trouble; but where drainage is non-existent or bad, as at Mian Mir, it is practically impossible, by any means at present within their reach, for the inhabitants to destroy the mosquitoes. In any scheme, then, which has for its object the removal of malaria from an area, the first step is to ascertain the condition of the drainage and, if it is imperfect, how it can be improved so as to prevent water-logging of the soil, not only in ordinary seasons, but in seasons of extraordinary rainfall. In the drier parts of India it seems it is abnormally heavy rainfall that is the danger. Last year in the west of the United Provinces the monsoon rainfall was about normal, but all the rain fell in two months, and fever was severely epidemic; in Berar the monsoon rainfall was 24 per cent in excess, but it took nearly four months to fall, and fever was less prevalent than usual. Drainage schemes are costly and they require a long time to carry out even when the funds are available, and in the meantime the choice must often be made between measures against mosquitoes and the administration of quinine—unless, as may often be the case, it appears to be advantageous to use both these measures. In making the choice all the circumstances of the case must be taken into consideration. To take extreme examples. If we have a town containing a few pools which are the only sources of the anopheles mosquitoes infecting the inhabitants, it is obvious that the remedy is to drain or fill up the pools. If we have a small village surrounded by a swamp in which anopheles breed, it is evident that quinine prophylaxis is the best remedy. In India we have all the gradations between these two extremes, but those approximating to the village in the swamp are in the enormous majority.

An obstacle that has stood in the way of quinine prophylaxis is the doubt entertained by the general public and some members of the medical profession of its efficacy. This doubt is in most cases founded upon experience—medical men have found persons who have apparently been regularly taking quinine get fever, and most practitioners have come across cases in which quinine seemed to fail to cure malarial fever, while instances are not uncommon in which the results of quinine prophylaxis in a community have been exceedingly unsatisfactory. Sometimes the cause of failure is not far to seek—the drug has not been taken at all, the dose has been too small or it has been taken irregularly. There are other instances, however, that are by no means easy to explain, and whoever has studied the recent researches into the fate of quinine in the animal body will recognize how thickly beset with

difficulties the subject is and how great is the necessity for further research, particularly in this country which differs so widely from Europe in respect of the food of the people, metabolic changes and conditions of climate. It is possible that a race of malarial parasites that is immune to quinine may be developed. Fresh water amoebae may be gradually habituated to salt water, the infusorian *Stentor* kept in a weak solution of corrosive sublimate becomes tolerant of a solution containing four times the quantity of the poison that is fatal to *stentors* taken from pure water. Trypanosomes frequently develop, in an animal being dosed with atoxyl, a race of trypanosomes that is immune to that drug, and they produce descendants in a new animal host which retain this immunity. Giemsa and v. Prowazek succeeded in obtaining races of *Colpidia* that could live in fairly strong solutions of quinine. The parasite of malaria is far more closely adapted to its normal surroundings than the protozoa I have mentioned, but it seems possible that quinine-fast plasmodia may be produced, and we may speculate regarding the nature of such an immunity and whether it would be retained after sexual reproduction and passage into a new human host. Persons infected with a quinine-fast parasite would be in an unhappy position. It appears, however, that the prejudice against the use of quinine as a prophylactic entertained by a few medical men is hardly logical. If it is admitted that quinine is *the* remedy for malarial fever and that it acts by killing the malarial organisms—propositions which few medical men will be found to deny—it is surely reasonable to believe that it will be as useful as a preventive as it is as a cure. When it is realized that it is fatal to the vegetative form of the parasite, but may be ineffectual against the sexual forms, it will be admitted that it is even more useful as a preventive than as a cure. There is much evidence accumulated in this country to show that quinine swallowed regularly in sufficient doses is very nearly a complete preventive of malarial infection, or at any rate of the clinical manifestations of malarial fever. The most striking evidence of the kind is afforded by Colonel Braide's experiment in the Punjab in the autumn of 1908. The results of this experiment have already been detailed in Section IV of this report and the success attained justifies a very critical examination of any reported failure.

I have laid stress upon the danger of comparing the statistics respecting the inmates of our prisons with the statistics of the general population, and I think it would be just as unsafe to believe that because quinine prophylaxis may, with considerable difficulty, be made a complete success in prisons it will be equally successful among the people. The prisoners are under great advantages, their lives are regularly ordered, they are well housed, well fed, protected against the vicissitudes of the weather, and rarely undergo any exceptional bodily exertion. Quinine is given to them systematically in sufficient doses under supervision, and when they are attacked by fever every means is used to ensure the quinine acting at an advantage. Among the general public many know that quinine is a remedy for malarial fever and are eager to get it when they are suffering, but many are prejudiced against it, and probably the majority have never heard of it. We shall therefore have to take means to bring the advantages of quinine before all those who live in malarious places, and not only eradicate prejudices, but educate the people to use the quinine in sufficient quantity and at the right time. The best preparations for the use of adults and children will have to be selected; and probably much will depend upon the way in which the drug is dispensed. The correct dose must be determined, and I

think it would be of advantage to issue the drug in tabloids or powders equal to the minimum dose sufficient for prophylactic purposes, with directions that the single dose should be repeated a certain number of times at specified intervals as a cure. It is essential, I think, that it should be recognized that the distribution of quinine cannot be made self-supporting, and in view of economy, if for no other reason, very careful enquiries will be necessary regarding the needs of different localities. In many places no quinine is necessary at all; in others it is required only for a short time in certain years; in others it is required every year, but only at a certain season, and in yet others there is need for its continuous use.

Although our knowledge of the etiology of malaria and its treatment is fairly extensive, it is still wanting in continuity and completeness, and the scientific study of its epidemiology is only beginning. Some of the gaps in our knowledge regarding the possibilities in the life cycle of the parasite must be filled before we can hope to master the epidemiology of the disease to which it gives rise, and we cannot devise the simplest and best preventive measures until the epidemiology is thoroughly understood. As I have endeavoured to indicate, we have little exact knowledge of the distribution of malaria in the country, of the local conditions which favour it, and of the best means to render these causes inoperative. It will be evident that the defects in our knowledge may be classified as follows:—

- (a) Questions of administration, *e.g.*, the best agency for the distribution of quinine.
- (b) Questions that can be solved by experts on the spot, *e.g.*, the causes of disease and death and the distribution of malaria in a district; and
- (c) Questions that can be solved only by highly trained experts with the resources of a well appointed laboratory at their disposal.

There is reason to hope that a permanent organisation for dealing with these and other matters relating to malaria in India will shortly be established.

118. Although the recorded death-rate from fevers in Bengal during 1908 was 23·44 per thousand as compared with 23·18 in 1907 there is reason to believe that on the whole malaria was considerably less prevalent than in that year. From October to December the recorded mortality from fever was less by 114,682 than during the same months of 1907 and the highest figure for any month was recorded in June when the severe epidemic of cholera was at its height. It is noteworthy also that the districts of Palamau, Birbhum, and Gaya which stood first, third, and fifth, respectively on the list of districts with the highest fever rates for the year were among the five districts with the highest cholera rates and that in these districts the seasonal incidence of the recorded fever mortality corresponded more nearly to the seasonal incidence of cholera than to the usual incidence of malaria. The provincial Sanitary Commissioner states that in comparison with previous years there was no serious outbreak of malaria anywhere in the province.

119. In Eastern Bengal and Assam 667,146 deaths from fever were recorded (22·37 per thousand of population) as compared with 631,197 deaths (21·17 per thousand) in 1907. In comparison with that year a disproportionately large number of fever deaths were recorded during March, April and May when cholera was severely prevalent and as in Bengal it is not improbable that to this cause must be ascribed

the increased death rate recorded as due to "fever". The provincial Sanitary Commissioner has reported that no serious outbreak of malaria occurred in any district and the Civil Surgeon of the Dinajpur district reports that in spite of the high death rate recorded (36.75 per thousand) malaria was less prevalent than usual and that the admissions to the dispensaries decreased by nearly 7,000. The deaths recorded as due to kala-azar numbered only 1,786 as compared with 2,227 in the previous year. Deaths were reported from all districts but the mortality from the disease has steadily declined since 1902, in which year there were 6,319 deaths.

120. The unusually severe epidemic of malaria that visited the United Provinces in the autumn of 1908 and the climatic and other conditions associated with it have already been referred to in preceding sections of this report. The total number of deaths ascribed to fevers during the year was 1,970,319 and the death-rate was 41.31 per thousand as compared with a total of 1,350,405 and a death-rate of 28.31 in 1907. Until August the figures compared not unfavourably with those of the previous year, but after that month they rose quickly to double or more of the usual number so that in the last four months more than a million deaths were ascribed to fever as compared with about half a million in the last quarter of 1907. The disease attacked rich and poor and every class alike, but the mortality occurred chiefly among the very young, the very old, and those whose food supply had been limited owing to the high prices prevailing during the two preceding years. The districts most severely affected were, Muttra, Budaun, Bareilly and Bulandshahr in all of which the fever death-rate was over 65 per thousand, and as regards towns with a population above 10,000 the highest rates were recorded in Kairana (105 per thousand) and Shikohabad (91 per thousand). About 7,000 lbs. of quinine were distributed gratuitously in the affected districts. Since October 1908 a selected officer has been on special duty for the investigation of malaria in these provinces.

121. The Punjab was the other great area of British India most severely affected by the malaria epidemic of 1908 and the recorded deaths from fever numbered 697,058 as compared with 405,481 in 1907. The deaths under this heading until the end of August were less by 8,000 than in the corresponding period of 1907, but during the remaining four months the figures exceeded those for the last quarter of that year by nearly 300,000. The fever death rate for the year was 34.66 per thousand against 20.16 in 1907. According to Captain Christophers, I.M.S., who was deputed to enquire into the conditions associated with the extraordinary prevalence of the disease, there were two chief epidemic areas, one in the north involving Gujrat, Gujranwala, and Shahpur, the other in the south-east involving Gurgaon, Delhi, and parts of Rohtak. Smaller epidemic areas occurred round Ludhiana and Jullundur. Since 1868 there have been nine years in which epidemics of a similar character, but sometimes more and sometimes less severe and widespread, have occurred in this province. The chief feature of these epidemics is the occurrence at certain central portions of the epidemic areas of foci in which the disease is so prevalent and severe that the mortality figures can scarcely be credited. Such foci Captain Christophers has termed "fulminant areas" and in the epidemic of 1908 they existed in the north over Gujrat, Amritsar, and Bhera, and in the south over Gurgaon. The fever death rates for the districts in which these places are

situated (the only figures by months which are available) convey a very inadequate idea of the mortality caused in different *thanas* and small towns, but it may be noted that the following were the annual fever death rates for the month of October in the districts referred to : Gujrat 169 per thousand, Amritsar 171 per thousand, Shahpur (in which Bhera is situated) 140 per thousand, and Gurgaon 212 per thousand. The heavy floods which accompanied the epidemic in all districts rendered any attempt to deal with breeding places of mosquitoes impracticable, but measures were promptly taken for the distribution of quinine gratuitously on a large scale and eight moveable hospitals worked continuously in the areas most severely affected. The central agency recently established in this province for controlling the distribution of quinine alone disposed of 6,000 lbs. of the drug and in addition large quantities were distributed by local bodies and organisations.

122. In the North-West Frontier Province 50,795 deaths from fevers were recorded during 1908, as compared with 52,361 in 1907, the ratios per thousand of population being 26·62 and 27·44, respectively. The autumn was, however, more malarious than that of 1907 and during October and November the fever deaths exceeded those for the same months of that year by 3,746. In the town of Peshawar the death rate from fevers was 22 per thousand as compared with 18 in 1907.

123. The peculiar distribution of the rainfall and of malaria in the Central Provinces and Berar during 1908 have been noticed in Section IV of this report. Among the civil population the number of deaths recorded as due to fever was 217,773 and the death rate 18·16 per thousand as compared with a total of 213,908 and a rate of 18 in 1907. The highest mortality was recorded during September, October and November, but the rise in comparison with the figures of other months was not great, which supports the opinion of the provincial Sanitary Commissioner that no outbreak of malaria sufficiently serious to require unusual measures occurred during the year. It is stated that in most towns attention has been paid to the general improvement of drainage and to filling up borrow pits and other hollows, depressions, small pools, and puddles.

124. In the Madras Presidency the death rate recorded from fevers was, as usual, much lower than in any of the other chief provinces. The total number of deaths recorded under the heading was 295,834 against 284,430 in 1907, giving ratios of 8·0 and 7·8 per thousand, respectively. The rates for districts varied from 19·9 per thousand in Vizagapatam and 19·8 in Ganjam to 1·5 in Bellary and 1·4 in Anantapur. The mortality from this cause varies very little from month to month in this presidency, but as usual the largest number of deaths were recorded in December.

125. In the Bombay Presidency the number of deaths recorded as due to fevers was 243,372 (13·17 per thousand of population) as compared with 260,329 (14·09 per thousand) in 1907. The number is the lowest recorded since 1899. The districts with the highest mortality were, as usual, Ahmedabad (25·73), Broach (23·26) and Sukkur (20·72) and a comparatively high ratio was also recorded in the district of the Panch Mahals in which it is said outsiders are deterred from settling on account

of its bad reputation for malaria. The community engaged in the manganese mining industry in Halol Mahal is said to have suffered greatly from the disease during 1908.

126. In Lower Burma the death rate from fevers in 1908 was 9.63 per thousand as compared with 10.28 in 1907 and in Upper Burma it was 8.23 as compared with 7.53.

Fevers in Burma.

In some of the districts which are reputed to be most malarious such as the Pyapon, Myitkyina, Katha, Ruby Mines, Salween and Upper Chindwin districts the registration of vital statistics is not in force.

127. In Ajmer-Merwara 14,682 deaths (30.79 per thousand) were ascribed to fevers as compared with 11,117 (23.31 per thousand) in 1907 and in Coorg the numbers and the rates were respectively, 5,028 and 27.85 as compared with 4,868 and 26.95.

Fevers in Ajmer-Merwara and Coorg.

128. In Bengal there was, as in the two preceding years, a reduction in the amount of quinine sold, 13,307 parcels (each parcel containing 102 seven-grain pice packets) having been sold as compared with 22,497 parcels in 1907 and 32,189 parcels in 1906. The largest quantity of the drug was sold during the last five months of the year, when fevers were prevalent. Measures have been taken since the close of the year for further extending and popularising the sale by cheapening the price and issuing the drug, not only in the form of powder as at present, but also, and chiefly, in small tablets.

Sale of pice packets of quinine.

In Eastern Bengal and Assam the total number of parcels sold was 33,608 against 18,993 in 1907. In the district of Bakerganj over 19,000 parcels, which represents more than two million powders, were sold. Various plans for pushing the sale of the drug have recently been adopted in this province, among them being the enlistment of village school-masters as agents.

In the United Provinces, in addition to the gratuitous distribution of about 7,000 lbs. of quinine, 2,300,230 pice packets were sold during 1908 against 722,377 in 1907. The number is little greater than was sold in one district of Eastern Bengal and Assam during the same year and the provincial Sanitary Commissioner considers that the form in which the drug is distributed is unsatisfactory and that the agency for its distribution is not sufficiently far-reaching.

In the Punjab quinine was distributed gratuitously on a large scale by numerous agencies but no details regarding the sale of pice packets are given in the provincial report.

In the Central Provinces and Berar 3,312 parcels, each containing 102 seven grain pice packets, were sold during the year as compared with 3,361 parcels in 1907. Of the total number 3,141 parcels were sold by post-masters and 171 by *patwaris*. The supply of 643 parcels to post-masters, stamp-vendors, schoolmasters, and *patwaris*, as an advance, has not been taken into account, as the sales from this supply are not known.

In Burma 908,092 pice packets of quinine in powder were sold in 1908 through the agency of district officers and vaccinators but this number does not include the sales at post offices, of which the account had not been received when the provincial Sanitary Report was written.

129. In 1908 the statistics of dysentery and diarrhoea among the general population were, possibly on account of the prevalence of cholera, of little value even as an indication of the increase or decrease of these diseases in different years; for despite the existence of every condition that it might reasonably be supposed would increase their prevalence and in the face of the indication afforded by the jail statistics that dysentery was prevalent among the general population in an unusually widespread and fatal form, the number of deaths recorded under this heading was only 285,921 as compared with 282,191 in 1907, a year during which, at any rate in the jails, dysentery was less common and less fatal than in any previous year. It is noteworthy also that in certain provinces, such as the United Provinces and the Central Provinces, where from the great rise in the mortality from dysentery in the jails we should have expected an even greater rise in the mortality among the free populations the statistics relating to those populations show decreases, in the United Provinces from 22,368 deaths in 1907 to 19,388 in 1908 and in the Central Provinces from 46,820 to 40,760. In the Madras Presidency, also, where the death rate from dysentery among the jail population rose from 2·85 per thousand in 1907 to 7·05 in 1908 the recorded death rate from dysentery and diarrhoea among the free population remained the same in the two years, namely, 1·7 per thousand. The recorded death rate per thousand of population for British India as a whole was 1·26 as compared with 1·25 in 1907 and 1·20 the rate for the quinquennium.

In Bengal 64,899 deaths from dysentery and diarrhoea were recorded in 1908 as compared with 51,670 in 1907, the death rates for the two years being 1·28 and 1·02 per thousand respectively. The highest death rate recorded in districts was 9·41 in Puri, in regard to which it was reported that as a result of the prevailing scarcity the poorer classes had been obliged to use roots, *sag*, and similar articles as food.

In Eastern Bengal and Assam 24,853 deaths were attributed to dysentery and diarrhoea in 1908 against 20,463 in the previous year, the death rate per thousand of population being ·83 as compared with ·68. The mortality on tea estates is said to have been especially severe owing to an increased importation of labour from famine stricken districts.

The death rate recorded from dysentery and diarrhoea in the United Provinces was only ·41 per thousand of population, being lower than in any other Province except the North-West Frontier. In the jails the diseases were most prevalent in the autumn but among the general population most deaths were recorded in May and June. The highest death rate registered in districts was 8·38 per thousand in Garhwal.

In the Punjab the deaths of 21,103 persons were ascribed to dysentery and diarrhoea during 1908 as compared with 15,091 during 1907, the death rate being 1·05 per thousand as compared with ·75. The seasonal incidence of the diseases corresponded with that of malaria, the greatest numbers of deaths being recorded in October and November when the malarial epidemic was at its height.

In the North-West Frontier Province only 320 deaths were attributed to dysentery and diarrhoea (·17 per thousand) as compared with 554 (·29 per thousand) in 1907.

In the Central Provinces and Berar the number of deaths from these diseases fell from 46,820 (3·94 per thousand) to 40,760 (3·40 per thousand). The ratio per thousand of population in the Central Provinces was only 2·24 as compared with a ratio of 7·28 in Berar. Several Civil Surgeons have reported that the relatively high mortality from this cause in Berar is due chiefly to the consumption of grain that has been stored for a long time in under-ground pits.

In the Madras Presidency 60,874 deaths from dysentery and diarrhoea were recorded as compared with 60,326 in 1907, the death rate, 1·7 per thousand, having remained the same during the last three years. The greatest numbers of deaths were recorded in January and August when cholera was severely prevalent.

In the Bombay Presidency 40,781 deaths were recorded from dysentery and diarrhoea, giving a ratio of 2·21 per thousand as compared with a total of 53,708 and a ratio of 2·91 in 1907.

In Lower Burma in 1908 the recorded death rate from dysentery and diarrhoea was 1·77 per thousand (9,833 deaths) as compared with 1·61 in 1907, and in Upper Burma it was ·68 as compared with ·47. The urban death rate in Lower Burma was 4·54 per thousand against a rate of 1·36 in rural areas the difference being attributed to less defective diagnosis in the towns.

In Ajmer-Merwara 727 deaths were attributed to dysentery and diarrhoea as compared with 494 in 1907 and in Coorg 408 deaths as compared with 375.

SECTION VII.

GENERAL HISTORY OF VACCINATION.

130. The total number of vaccination operations performed during the year 1908-09 was 9,123,362 a decrease compared with 1907-08 of 46,511, but an increase compared with 1906-07 of 43,059. Decreases occurred in the United Provinces (245,354), the Punjab (38,785), Burma (10,120), Ajmer-Merwara (1,774) and Coorg (668), particulars of which will be found in the paragraphs relating to individual provinces. The primary cases numbered 8,161,297 against 8,351,530 in the preceding year, and revaccinations 962,065 against 818,343—a decrease of 190,233 in the former and an increase of 143,722 in the latter. Decreases in both classes of work were recorded in the United Provinces, Burma, Ajmer-Merwara and Coorg, while in Bengal, the Punjab and Madras the decrease was in primary cases only, and in the North-West Frontier Province in revaccinations only. Taking all provinces together, primary cases succeeded at the rate of 97·47 per cent. compared with 97·65 per cent. in 1907-08, and ranged from 99·34 per cent. in Bengal to 92·41 in Coorg: in revaccinations the rate was 73·44 per cent. against 75·45 per cent. the year before and the range between 92·11 in Ajmer-Merwara and 59·99 in Burma. The mean number of operations performed by each vaccinator was 1,507 compared with 1,480 in 1907-08, there being the usual differences between provinces, the means varying between 2,591 in the North-West Frontier Province and 2,531 in the Punjab, and 1,077 in Bengal and 853 in Ajmer-Merwara.

There was again a fall in the amount of vaccination work performed at dispensaries, the total declining from 199,245 operations in 1907-08 to 191,242 in 1908-09. In four provinces there was an increase, of which the largest was 11,834 in Bengal followed by 1,551 in the Central Provinces, and in six there was a decrease, of which the greatest occurred in Eastern Bengal and Assam (15,547) and Bengal (5,044).

The mean proportion of population successfully vaccinated was 35·93 per thousand of the census population, compared with 36·07 in 1907-08, the highest ratio being again recorded in Coorg, 50·68, while the lowest was recorded in Ajmer-Merwara, 26·13. On an estimated birth rate of 40 per thousand of the census population, 43·87 per cent. of the infants were successfully vaccinated, which though lower than the rate of 44·36 in 1907-08 is higher than that in any of the three preceding years. There were great differences in the provincial rates, the highest, 76·98 per cent. was recorded in the Central Provinces and the lowest, 12·15 per cent. in Coorg.

The total cost of the department was Rs. 15,10,536 to which it rose from Rs. 13,90,087 in the previous year, every province, except Ajmer-Merwara, contributing to the rise. The mean cost of each successful case was two annas and 10 pies or three pies more than in the year before. The highest rate was eight annas and five pies in Bombay and the lowest one anna and three pies in Eastern Bengal and Assam.

131. Particulars as to the lymph supply of each province will be found in the succeeding paragraphs. The more important
 Vaccine lymph.

changes were the closing of the lymph depôt at Lucknow where it is no longer required, the opening of the vaccine lymph depôt at Belgaum whence preserved lymph will be distributed throughout the Bombay Presidency including Sind, and the introduction of payment for all vaccine lymph issued by the Punjab vaccine depôt to prevent undue waste by demands in excess of requirements.

132. The vaccination operations in Bengal in 1908-09 totalled 2,241,576 compared with 2,058,371 in 1907-08, an
 Bengal.

increase of 183,205 against an increase of 21,098 in the previous year. The increase is the more satisfactory because it occurred in both primary cases and revaccinations. There are 34 districts in the province, in 25 of which the totals were larger than in the previous year. The most noticeable increase was of 90,628 operations in the Tributary States of Orissa, for which, however, no explanation has been furnished. The other more important increases were recorded in the districts of Cuttack (17,224), Palamau (14,390), Midnapore (13,688) and Burdwan (11,614). The increase in Cuttack is a result of the employment of a larger number of vaccinators, of the better organization of work and of the efforts of the special inspector of vaccination for Orissa, whose appointment has been justified. Elsewhere the greatest prevalence of small-pox was the principal cause of more vaccination work being done. In four only of the nine districts in which decreases occurred were the figures considerable, *viz.*, Darbhanga (14,156), Ranchi (7,886), Hazaribagh (7,657) and Bhagalpore (5,248). In the three first the prevailing scarcity compelled the labouring classes to leave their homes in search of employment, while in Bhagalpore the larger number of vaccinations in the preceding year and a lower small-pox mortality explain the decrease. In primary cases the quality of work was practically the same as in 1907-08, the percentage of success in the two years being 99.34 and 99.32, respectively, but in revaccination the rate fell to 61.78 from 72.96 the year before. Paid vaccinators performed on the average a larger number of operations than the licensed operators, but except in the case of revaccinations by District Board vaccinators, the licensed vaccinators returned a higher successful rate. The work of the vaccinators attached to municipalities, dispensaries, etc., showed an improvement, the primary cases increasing from 88,481 to 90,874 and revaccinations from 42,466 to 51,907. In the former the percentage of success was 98.60 and in the latter 60.39, against percentages of 98.65 and 68.70, respectively, in 1907-08. There was a fall in the number of primary operations on tea gardens and at factories, from 4,279 to 2,945, and a remarkable fall in revaccinations from 11,421 to 1,403, which is not explained. The ratios of success which had been 95.02 and 78.92 per cent., respectively, were 98.91 and 42.05. The steady progress in the protection of infants continued, 43.91 per cent. on an estimated birth rate of 40 per mille compared with 42.39 per cent. in 1907-08, being successfully vaccinated. There was a satisfactory improvement in Puri which had been most backward in vaccination especially in respect of infants under one year of age, but the hearty co-operation of the District Magistrate and the Civil Surgeon, combined with the efforts of the special inspector of vaccination for Orissa, induced parents to offer their children for vaccination even in places in which they have hitherto always resisted it.

Primary operations during the year were conducted with lymph direct from the calf, with lanoline lymph and by the arm-to-arm process. The percentages of success by each method were—(the ratios in brackets are for the preceding year), 99·49 (99·01), 98·09 (98·59) and 98·77 (98·99), respectively. In revaccinations the corresponding rates were 76·83 (74·70), 59·59 (64·77) and 83·41 (75·73).

The department cost Rs. 2,17,721 against Rs. 2,03,667 in 1907-08, and each successful case one anna and seven pies or one pie less than in the previous year.

The quantities of lymph manufactured at the Calcutta and Darjeeling Vaccine Depôts were 420,945 and 69,073 grains, respectively, compared with 318,447 and 69,009 grains, respectively, the year before, which may be regarded as evidence that the arm-to-arm process is being steadily replaced by the use of prepared lymph.

The Nepal Darbar and the Sikkim State obtained 250 and 1,130 grains of lanoline vaccine paste, respectively, against 110 and 770 grains in the previous year.

133. The improvement in the work of the Vaccination Department in the province in 1907-08 when there was an increase of 40,612 operations, continued in 1908-09 when with an increase of 91,014 the total number was 1,449,658. Of the total, 1,349,379 were primary cases and 100,279 revaccinations, showing increases of 65,030 and 25,984, respectively, on the results of the previous year. Of the 28 districts, an increase on the previous year's work occurred in ten, being most marked in Mymensingh, Faridpur, Bakarganj, Dinajpur and Rangpur, in each of which there were upwards of 11,000 operations more than in the preceding year. The increase in these districts was due mainly to greater activity of the staff in consequence of the prevalence of small-pox in the last quarter of the year 1908, and in one district the people themselves sought vaccination. The principal decreases occurred in Noakhali, the Naga Hills and Tippera. No explanation is given of the decrease in the first and last named, but in the Naga Hills it was due to the substitution of Angami Nagas, specially trained as vaccinators, for Assamese vaccinators, a change not acceptable to the people. It is satisfactory to note that in the Kamrup district further progress was made in overcoming the opposition of the Mahapurushyas and in the Lakhimpur district of extending vaccination among the Muttocks and also among the Miri tribes, 1,289 of the latter having been vaccinated for the first time. The quality of work was better in 1908-09 than in the preceding year in both classes of operations—in primary cases 98·76 per cent. successful against 98·23 per cent. and in revaccination, 74·26 against 70·21 per cent.

The amount of vaccination work at dispensaries fell from 20,168 cases in 1907-08 to 4,587 in 1908-09, the decrease is explained by the transfer to the regular vaccination staff of areas around hospitals in the Cachar and Sylhet districts and at most of the dispensaries in the Assam Valley districts in which vaccination used to be performed by Hospital Assistants on the staff of the hospitals. Vaccination at dispensaries has not, however, ceased altogether as a small stock of vaccine is maintained in order that the Hospital Assistant and Compounder may be able to vaccinate people who apply to the dispensary for the

operation. The quality of the work was not as good as in the preceding year, *viz.*, 96·6 per cent against 98·40 per cent. successful in primary cases, and 74·96 against 81·34 in revaccinations. Of the total of 19,858 operations on tea gardens 19,051 were primary and 807 revaccinations, which succeeded at the rates of 96·56 and 95·04 per cent., respectively, the figures showing an improvement on the results of the previous year.

On an estimated birth rate of 40 per thousand, infants under one year of age were successfully vaccinated at the rate of 30·65 per cent. against a rate of 30·76 in 1907-08. In towns 66·8 per cent. of the available children were successfully vaccinated against 52·15 per cent. in 1907-08, to which the rate had fallen from 68·70 in 1906-07. In some places there are objections on the part of parents to have their children vaccinated during the first year of life.

The quality of vaccine manufactured at the Shillong dépôt was on the whole reported to be excellent; the number of tubes loaded increased by 283,335 to 1,866,457, and the cost per tube was 2·1 pies against 2·4 pies in 1907-08.

The cost of the department which had been Rs. 1,02,096 in 1907-08, increased to Rs. 1,10,614, the average cost of each successful case being the same as in the previous year, *viz.*, one anna and three pies.

134. The work of the Vaccination Department in the United Provinces was seriously affected by the widespread prevalence of malaria and of famine conditions. The total number of operations performed fell from 1,702,139 in 1907-08 to 1,456,785 in 1908-09. The decrease was more marked in the First Circle than in the Second Circle, except in the case of revaccinations, owing to the districts which suffered most from malaria being almost all situated in the First Circle. Of the 50 districts, decreases occurred in no less than 40. Of the total operations 1,325,443 were primary cases and 131,342 revaccinations, compared with 1,562,231 and 139,908, respectively, in the preceding year; the percentage of success in the former was 96·49 against 97·85, and in the latter 80·84 against 83·92. At dispensaries only 765 operations were performed compared with 1,442 in 1907-08, but although the general unfavourable conditions affected the vaccination work at dispensaries, but little such work is done at any time because children are either vaccinated at their homes or at vaccination stations.

Estimating the birth rate at 40 per thousand, 41·39 per cent. of the infants were successfully vaccinated. The fall from the rate of 49·94 per cent. in the previous year is explained by a smaller number of children being available owing to malaria, which not only caused a heavy mortality, but rendered the majority of the survivors unfit for vaccination, while famine conditions, and to a certain extent small-pox, measles and a low birth rate, contributed to reduce the number of children available for the operation. In towns a larger number of children were successfully vaccinated than were calculated to be available, but this is explained by children born outside being brought in and vaccinated, and to the ages of children being often incorrectly stated.

The Bovine Lymph Dépôt at Patwa Dangar now supplies the whole province and the local dépôt at Lucknow was therefore closed. The working of the Patwa Dangar dépôt was very successful during the year; not only was the quantity of lymph issued greater than in any previous year, but the income also showed a

satisfactory increase. Endeavours are being made to replace arm-to-arm vaccination by the use of calf lymph, but this is to be effected gradually.

The cost of the department was Rs. 1,77,625 against Rs. 1,62,530 in the previous year, the increase being due to necessary expenditure at the Bovine Lymph Depôt and to there having been two full-time Deputy Sanitary Commissioners for about $10\frac{1}{2}$ months of the year. The average cost of each successful case was two annas and one pie against one anna and seven pies the year before.

135. The effects of the epidemic of malaria fever in the Punjab in the autumn of 1908 is shown in the vaccination statistics of Punjab. the province for the year 1908-09; when compared with the preceding year there was a decrease of 38,785 vaccination operations. The primary cases were 59,368 fewer, but revaccinations were 20,583 more than in 1907-08. The decrease in the primary work is said to be due to the effects of the epidemic of malaria and not to laxity on the part of the vaccinating staff, as although the number of children available for vaccination was 10·43 per cent. less, the ratio of successful primary vaccinations was 4·76 greater. It is explained that while the people generally appreciate vaccination, particularly the first operation, the majority object to revaccination regarding it as unnecessary or a hinderance to work; moreover there is a lack of interest on the part of persons who should co-operate with the vaccinators, indeed, in one district the Civil Surgeon considers that with the co-operation of the people the work of vaccination could be performed with half the present staff. In order to popularize the operation, it is proposed to introduce house-to-house vaccination which will save time as vaccinators will proceed to houses where there are children to be vaccinated, and this will save people the exertion and annoyance of taking children to a distance. With the decrease in the number of primary cases, there was also a fall in the percentage of success from 99·03 in 1907-08 to 98·43 in 1908-09, but in revaccinations the rate rose from 75·91 to 76·93 per cent.

On an estimated birth rate of 40 per thousand, 51·49 per cent. of the infants were successfully vaccinated against 56·51 per cent. in 1907-08 and 60·05 per cent. in 1906-07. In towns in which the Vaccination Act is in force 82 per cent. of the available children were protected, and in the towns to which the Act does not apply 64 per cent.; the corresponding rates in the previous year were 77 and 62 per cent. respectively.

According to the proposal made last year, vaccine lymph was issued on payment throughout the province in order to check demands in excess of requirements.

The case and insertion success of the vaccine supplied was, in primary cases, 97 and 96 per cent. respectively, and in revaccinations, 77 and 73 per cent. all slightly higher rates than in 1907-08, except as regards revaccination insertions in which the rate was lower.

The cost of the department again showed an increase, rising from Rs. 1,04,112 in 1907-08 to Rs. 1,14,761 in 1908-09, and the cost of each successful case from two annas and seven pies to three annas and one pie.

In the large native states in the province there was also a decrease in the total number of vaccinations performed which, as in the province proper, is attributed to the autumn epidemic of malaria. The following are the particulars by states—the figures in brackets relate to the preceding year. Patiala, primary cases 42,500 (45,776), revaccinations 24,106 (22,455); Bhawalpur, 8,344 (19,665) and 119 (322); Kapurthala, 3,651 (3,796) and 49 (766); Nabha, 1,607 (1,578), Jhind 6,168 (6,208), no revaccinations; and Faridkot 3,485 (3,720) and 52 (36).

136. It is satisfactory to record that after two successive years in which the total number of vaccination operations declined, there was in 1908-09 an increase of 513 operations compared with the previous year. Of the total of 91,368 operations, 81,181 were primary cases and 10,187 revaccinations, the former showing an increase of 4,832, and the latter a decrease of 4,319. The increase in the total is all the more satisfactory as work was considerably hampered during the early part of the vaccinating season by the prevalence of cholera which necessitated the employment of several vaccinators on cholera duty. Vaccination is becoming more popular with the people as a result of the use of glycerinated chloroform lymph, and the discontinuance of the use of animal lymph has played an important part in lessening friction between vaccinators and villagers in connection with the provision of animal vaccinifers. The percentage of success was not so high as in the previous year, the rate for primary cases being 98·38 against 99·22 and for revaccinations 82·14 against 88·18. No reason has been given for the fall in the percentages.

As regards dispensaries, in 1907-08, 170 primary operations, all of which were successful, were performed at the Mardan dispensary only. In 1908-09 no vaccination work was done at the Mardan dispensary, but 72 primary operations were performed at the Chakdara dispensary and 609 at the Mastuj dispensary in the Chitral Sub-Agency, the percentage of success being 94·20 and 95·19, respectively.

In the Political Agencies of Kurram and the Tochi there was a marked falling off in vaccination work which is attributed to political unrest on the Kurram border and to the suspicions of the trans-border tribes of Government measures to prevent the spread of cholera. In spite of these suspicions, however, the people of certain villages across the Kurram border sought later the aid of Government vaccinators on the appearance of an epidemic of small-pox. Vaccination was introduced into the Chitral Sub-Agency in supersession of inoculation through the efforts of the Civil Surgeon who trained as vaccinators, two Chitralis who performed 3,276 operations of which 2,949 were primary. In the Shirani country the number of operations increased from 2,605 in 1907-08 to 4,972 in 1908-09, of which 3,106 were performed with glycerine lymph, indicating that the arm-to-arm method is not now in much demand. Excluding the operations at the Chakdara dispensary, no vaccination was done in the Swat Valley; the attempts to secure local recruits as vaccinators were not successful, and efforts are to be renewed.

On an estimated birth rate of 40 per thousand, 60·49 per cent. of the children under one year of age were successfully vaccinated, which is 3·45 per cent. in excess of the rate in the previous year. As regards municipal towns, in some

the number of children successfully vaccinated exceeded the number available, and in others a large proportion of those available were not protected. The Vaccination Act has not yet been applied to the towns of Peshawar and Lakki.

Glycerinated chloroform lymph was used for the vast majority of the vaccinations, but owing to the limited supply from the Punjab vaccine depot, it was necessary to resort in the cases of a small number of persons in the Dera Ismail Khan and Kohat districts to the use of animal lymph, and to human lymph for a large number of the Chuhar Khel tribe who unexpectedly presented themselves for vaccination.

No inoculation was reported in the settled districts, and it is satisfactory to find that gradual instruction and the breaking down of long established prejudices is eliminating the inoculator and soon the practice of inoculation should cease altogether in the province.

The cost of the department was Rs. 12,575 or Rs. 375 more than in the previous year, and the cost of each successful case two annas and five pies, or two pies more than in 1907-08.

137. Including the vaccinations performed at dispensaries and in the Feudatory States, the total number of operations numbered 639,647, or 40,400 more than in 1907-08. The increase is accounted for partly by the inclusion of 14,740 operations performed in three Feudatory States from which no return was received last year, and partly by the excellence of the work done in the districts of Jubbulpore, Yeotmal, Akola, Buldana, Saugor and Nimar. Of the total, 553,438 were primary cases and 86,209 revaccinations, compared with 524,599 and 74,648, respectively, in the previous year. The percentage of success was 98·78 against 98·41 in primary cases and 75·66 against 76·36 in revaccinations.

Taking the three agencies—Khalsa, Dispensaries and Feudatory States separately, the details were as follow—

Khalsa—Of the total of 537,941 operations, 462,134 were primary vaccinations and 75,807 revaccinations, compared with a total of 511,603, and 444,773 and 66,830 primary operations and revaccinations, respectively, in the preceding year. In primary cases the ratio of success was 99·10 against 98·75 per cent. and in revaccinations 74·99 against 76·12 per cent. Of the 22 districts no less than 16 contributed towards the increase, among them were Mandla (6,029), Jubbulpore (4,399), Akola (4,336), Buldana (4,046) and Yeotmal (3,767). Of the six districts in which a decrease occurred, the largest fall was in Bilaspur (4,383), followed by Nagpur (3,099) and Wardha (2,666). The cause of the decrease is attributed mainly to bad work by vaccinators.

Dispensaries.—Including the institutions in the Feudatory States the vaccination operations at dispensaries consisted of 22,199 primary cases and 3,376 revaccinations, compared with 20,964 and 3,060, respectively, in 1907-08, and the percentages of success in the two classes of work were 97·40 and 59·09, respectively, in 1908-09 against 95·77 and 69·98 in 1907-08.

Feudatory States.—There was a total of 76,131 operations made up of 69,105 primary cases and 7,026 revaccinations, against a total of 63,620 in 1907-08,

of which 58,862 were primary cases and 4,758 revaccinations. The increase is due to the submission of returns from three States from which they were not received in the preceding year. The percentage of success in primary work was 94.08 and in revaccinations 89.20, against rates of 96.78 and 83.07, respectively, in 1907-08.

On an estimated birth rate of 40 per thousand for the whole province, including States, 76.98 per cent. of the children were successfully vaccinated compared with 73.46 per cent. in the preceding year. In the municipal towns of the province 91.70 per cent. of the children calculated to be available were protected, against 91.88 per cent. the year before.

Glycerinated lymph was used in the vast majority of the vaccination operations; lanolinated lymph and fresh calf lymph were also used, but to a limited extent. The percentages of success by the three methods were 93.11, 76.41 and 99.36, respectively. The arm-to-arm method is still occasionally practised in the Chanda, Raipur, Drug and Buldana districts, but the hope is expressed that it will be possible to discontinue it.

The total cost of the department was Rs. 72,482, of which Rs. 65,994 were spent in British territory and Rs. 6,488 in the States, as compared with Rs. 62,925 and Rs. 5,005, respectively, in the previous year, while the cost of each successful case was two annas in British territory in both years and in the States one anna and four pies in 1908-09 and one anna and five pies in 1907-08.

138. The total number of vaccination operations in the Presidency rose from 1,627,848 in 1907-08 to 1,649,405 in 1908-09, showing an increase of 21,557 cases. The increase was neither so great nor as satisfactory as in the previous year when it occurred in both classes of work. Of the total operations in 1908-09, primary cases numbered 1,478,771 or 24,597 less than in 1907-08, and revaccinations 170,634 or 46,154 more, giving a net increase of 21,557. Among the districts the largest increase occurred in Vizagapatam (30,604), followed by Chingleput (9,632), Godavari (8,047) and Salem (5,283), attributed mainly to the prevalence of small-pox. The largest decreases occurred in Madura (5,806), Kistna (5,328), Trichinopoly (4,675), Kurnool (3,890) and Ganjam (3,653), in all of which, except Trichinopoly, the decline is ascribed wholly or in part to the absence of vaccinators on leave without substitutes being provided, and in Trichinopoly to the reduction of the vaccinators' minimum outturn of work and to there being less small-pox. The percentage of success in primary cases was practically the same in both 1908-09 and 1907-08, *viz.*, 95.5 and 95.6, respectively, but in revaccinations the rate was 81.4 to which it rose from 76.6 the year before. There was again a decline in the number of vaccinations performed in municipalities, the number falling to 143,267 from 150,906 in 1907-08; among the towns showing a decrease was Madras (4,194), Calicut (2,453), Cannanore (1,563) and Madura (1,086). In Madras the fall was due to a smaller number of vaccinations having been performed at the Natal and Mauritius emigration depots and at the Penitentiary, and elsewhere to one or more of the following causes—prevalence of plague and cholera, decreased birth rate and the non-entertainment of temporary vaccinators. The steady fall in dispensary vaccination

explained in the preceding reports, continued, the number of operations falling from 158 in 1907-08 to 55 in 1908-09.

On an estimated birth rate of 40 per thousand, 40·98 per cent. of the children against 36·98 per cent. in the previous year, were successfully vaccinated, and in municipalities the rate was 68·7 per cent. in 1908-09 compared with 67·3 per cent. the year before.

Lanoline lymph supplied by the King Institute was chiefly employed; in Local Fund areas it was employed exclusively with a percentage of success of 95·3; in municipalities the rate of success was 96·6 per cent. with lanoline lymph, while with glycerine lymph it was 99·7 per cent. and with calf lymph, prepared locally, the rate of success was as high as 99·9 per cent.

Lymph was issued throughout the year from the King Institute and unless glycerine lymph was asked for, lanoline lymph was supplied. The Superintendent of the Institute points out that the glycerine lymph is much more sensitive to high temperatures than lanoline lymph and should therefore be used as soon as possible after receipt. The Superintendent also mentions that, as it has now been abundantly proved that vaccine kept at approximately freezing point will retain its potency for at least six months, advantage will be taken of the fact to prepare vaccine only under the most favourable climatic conditions. The Superintendent's warning as to the necessity, owing to the risk of deterioration, of vaccinators using vaccine within a fortnight of the date of its issue from the Institute, has been impressed on the local authorities.

The cost of the department increased from Rs. 2,99,200 in 1907-08 to Rs. 3,21,757 in 1908-09, and the cost of each successful case from three annas and three pies to three annas and five pies.

139. In this small province the total vaccination operations fell from 11,150 in 1907-08 to 10,482 in 1908-09. The primary cases numbered 8,509 and revaccinations 1,973, or 31 and 637 fewer, respectively, than in the year before. Included in these figures are 232 operations performed at dispensaries compared with 246 in 1907-08. The decrease is attributed to the prevalence of small-pox in the previous year in the Mercara municipality and the Padilknad and Yedilknad *taluks* when more vaccination work was the result. The percentage of success was lower in 1908-09 than in 1907-08, the respective rates being 92·41 and 93·52 in primary cases, and 75·05 and 79·19 in revaccinations.

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On an estimated birth rate of 40 per thousand, 12·15 per cent of the children were successfully vaccinated against 10·44 per cent. the year before. In municipalities 172 children were calculated to be available, but 193 were successfully vaccinated, which suggests that children from outside were brought in and vaccinated.

The cost of the department rose from Rs. 2,773 in 1907-08 to Rs. 2,809 and the cost of each successful case from four annas and eight pies to five annas.

140. During the year 1908-09, the total number of primary vaccinations numbered 673,347 against 596,663 in 1907-08, and the revaccinations 52,425 against 40,985, showing a total increase of 88,124 operations. This is satisfactory when compared with the

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results of 1905-06 and 1906-07 in both of which years there was a fall, and in 1907-08 when the recovery was to the extent of a total increase of 7,653 operations only. All the districts contributed to the increase in primary cases and in two only, the Southern and Sind Registration districts, were the revaccinations less numerous than in the preceding year. The percentage of success in primary operations was 96.02 or a little below the rate of 96.78 in 1907-08, but the rate in revaccinations fell to 70.65 from 76.86. In the above is included the work done at dispensaries. At these institutions 624 primary operations were performed compared with 730 the year before, the ratios of success being 95.65 and 96.71 per cent., respectively, while revaccinations numbered 1,073 against 850 with ratios of success of 78.94 and 19.10 per cent.

On an estimated birth rate of 40 per thousand, 54.86 per cent. of the children were successfully vaccinated, or 4.66 per cent. more than in the previous year. As in previous years, the number of children successfully vaccinated in certain municipal towns exceeded the number available owing to the former number being augmented by the influx of children from outside who are necessarily not reckoned among the births.

The buildings for the vaccine depot at Belgaum under construction at the close of the year, were expected to be completed by the commencement of the next vaccinating season when the use of preserved lymph will be extended to the whole Presidency including Sind. With the lymph issued to vaccinators the case and insertion success were at the rates of 97.72 and 94.78 per cent. respectively; excluding the operations in the hot months of April and May the rate of success approached 100 per cent. The introduction of cold storage is expected to overcome the climatic disadvantage which is experienced at present.

Glycerinated lymph was chiefly used, but in all registration districts except the Presidency. Human lymph was also employed, to the largest extent in the Sind Registration district. Animal lymph was used in four of the six registration districts, but in one of the four, the Central district, only to a small extent.

The cost of the department rose from Rs. 2,93,941 in 1907-08 to Rs. 3,27,370, the explanation being the increased pay of Deputy Sanitary Commissioners, the grant of grain compensation allowance to staff, and to the entertainment of additional vaccinators. The cost of the Belgaum Vaccine depot increased from Rs. 14,490 to Rs. 23,024 and this is stated to be due to the inclusion of expenditure of the previous year, to certain capital expenditure on apparatus and to a severe and fatal epidemic among the calves. The cost of each successful case was eight annas and five pies or one pie less than in the year before.

141. In 1907-08 there had been a fall of 23,119 vaccinations in Burma compared with the preceding year, and in 1908-09, with a total of 396,413 there was a further fall of 10,120 operations. Of this total, 342,977, or 7,998 fewer than in 1907-08, were primary cases and 53,436, or 2,122 fewer, were revaccinations. Primary work was successful at the rate of 93.59 per cent., showing an improvement on the rate of 91.86 per cent. in the previous year, and in revaccinations also there was an improvement, the rates being 59.99 and 58.97 per cent., respectively, in the two years. Although, then, in the past two years the amount of vaccination work has declined,

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its quality has improved. Excluding the vaccinations at dispensaries, 14 districts show an increase in the number of operations, the largest increases being in the Southern Shan States (8,353), Kyaukpyu (3,461) and Shwebo (2,000). In four other districts there was an increase of over 1,000 cases. In 26 districts there was a decrease, the largest being 3,933 in Akyab, 3,101 in Upper Chindwin, 2,571 in Meiktila and 2,198 in Myingyan. Various reasons are assigned for the falling off that occurred, such as epidemics of plague and cholera in some districts, the absence of small-pox in others, emigration of the people from tracts affected by scarcity, inefficiency among or absence of the vaccinating staff, and passive opposition to vaccination on the part of people who favour inoculation. The provincial Sanitary Commissioner agrees that the explanations are reasonable in some, but not in all cases, for instance, severe plague and cholera epidemics in Tharrawaddy did not prevent the increase of vaccination work in that district. In the work done at dispensaries there was a falling off of 5,044 operations and also in the percentage of success in primary cases, from 95·32 in 1907-08 to 94·24 in 1908-09, though in revaccinations the rate rose from 60·18 to 64·25 per cent. It is assumed that the reasons for the falling off in vaccination work in the districts apply also to the work at dispensaries, though this is the first check in the steady increase hitherto recorded at the latter.

On an estimated birth rate of 40 per thousand, 21·07 per cent. of the children were successfully vaccinated compared with 19·71 per cent. in 1907-08. In towns it was again the case that a larger number of children were successfully vaccinated than were estimated to be available; evidently children not included in the births of the town were brought in and vaccinated.

The vaccine depot at Meiktila continued to supply vaccine to the entire province, excepting the Rangoon municipality, the greater part of the issues being of glycerinated lymph; lanoline and quinated vaccine were also issued, but the latter only to a limited extent. The Superintendent of the depot complained that there had been an unnecessary wastage of vaccine for which, however, in some instances there is a reasonable excuse owing to subjects for vaccination not being readily available; in other cases it is said that the backward state of vaccination is the reason for the wasteful use of vaccine. The best results were obtained with glycerinated lymph. The provincial Sanitary Commissioner pays a high tribute of praise to the late Superintendent of the depot, Major Entrican, I.M.S., for the perfection to which he brought the manufacture of vaccine during his incumbency of the appointment of Superintendent.

The vaccine supplied by the Rangoon Municipal vaccine depot was of excellent quality throughout the year; the percentage of success obtained with it in primary cases was 98·95. The new buildings for the depot are now ready for occupation.

Inoculation is still practised in some districts, especially of the Arakan, Irrawaddy and Pegu divisions, and it is in those districts that vaccination is backward, the people maintaining a hostile attitude towards it. Under an Act passed during the year inoculation becomes a criminal offence in places where the new law is applied, and this is to be done as a commencement in the Hanthawaddy and Pegu districts. An Act to make compulsory the vaccination of labourers arriving at Rangoon who are unprotected from small-pox has also recently been passed; under this law the Municipal Committee of Rangoon is

given additional powers to secure the vaccination of the occupants of lodging houses and factories.

The cost of the department rose from Rs. 1,38,604 in 1907-08 to Rs. 1,49,847 in 1908-09, the increase being due to the entertainment of additional establishment and greater expenditure on account of travelling. The cost of each successful case was seven annas and five pies or six pies more than in the previous year.

142. The total number of vaccination operations in Ajmer-Merwara during 1908-09 was 12,801 of which 12,497 were primary cases and 304 revaccinations. Compared with the preceding year there was a decrease of 1,774 in the total—1,383 fewer primary cases and 391 fewer revaccinations. The percentage of success in primary operations was 97·48 which is slightly below the rate of 97·94 in the previous year, but in revaccinations the rate was 92·11 per cent, to which it rose from 67·19 in 1907-08. No vaccination was done at dispensaries.

On an estimated birth rate of 40 per thousand of the population, 52·90 per cent. of the infants were successfully vaccinated as compared with 54·81 per cent. during 1907-08.

The cost of the department which had risen to Rs. 3,034 in 1907-08, fell to Rs. 2,975 in 1908-09, but each successful case cost three annas and ten pies against three annas and five pies the year before.

143. Particulars as to vaccination among troops will be found in Statement III of the Appendices to this Section. The form of the statement has been amplified in order to give more information than hitherto.

SECTION VIII.

SANITARY WORKS.

144. Excluding Calcutta, the number of municipalities in Bengal in 1907-08 was 127, the municipality of Uluberia having been abolished during the year. The aggregate income, including the opening balances, was Rs. 67,96,298, of which 39·51 per cent. was spent on original or recurring sanitary works (against 43·15 per cent. in the previous year), 9·18 per cent. on roads (against 7·24), 4·36 per cent. on the public safety (against 5·04), and 27·11 per cent. on other requirements (against 27·59). The actual sums expended under the main heads were Rs. 13,40,392 on conservancy, including the pay of establishments, road watering, etc.; Rs. 3,39,609 on water supply; and Rs. 2,68,822 on drainage. An increase of about Rs. 95,000 on conservancy as compared with the previous year seems to have been generally distributed, while a decrease of about Rs. 78,000 on drainage was due to a reduction in the exceptional expenditure at Howrah. The provincial Sanitary Commissioner states that the results of the efforts of past years to improve the health conditions of the towns is very perceptible; but the local Government points out that the rate of progress is slow in comparison with what there is to be done. Delays are due largely to want of funds, but time and money also are wasted by defective preliminary work on projects and the Sanitary Board have been instructed to examine this question with a view to ensuring efficient supervision and, if necessary, affording expert assistance at the early stages of schemes.

Much attention was paid to the working of septic tanks, particularly the important ones installed by the mills on the banks of the Hooghly, and an Inspector was appointed for the purpose of ensuring their efficient working.

145. The Sanitary Board met five times during the year. The principal subjects of discussion at these meetings were (1) the improvement of sanitary administration; (2) the supervision of the preparation of municipal drainage schemes in the Presidency Division; (3) the construction of a drainage scheme for the Baranagar Municipality; and (4) the pay and emoluments of the office of Assistant Sanitary Engineer.

Preliminary estimates were prepared for (1) water supply works for Hooghly-Chinsurah, where it is proposed to lift water from the Hooghly into settling tanks, thence it is to pass through filters into a clear water reservoir from which it will be pumped into two service reservoirs. The scheme which is to supply eight gallons a head daily to a population of 25,000, is estimated to cost Rs. 3,70,000; (2) Daltongunge water works—this is a reconstruction scheme rendered necessary owing to the failure of the existing well to furnish the increased supply of water necessary.

A detailed estimate was prepared for water works at Gaya (town population 71,416), where it is proposed to sink three wells from which water will be

pumped to two service reservoirs for the supply of the town. The estimated supply is 13 gallons a head and the cost Rs. 6,52,680.

The following schemes were considered :—

- (1) Burdwan drainage scheme.
- (2) Khulna drainage project.
- (3) Serampore drainage scheme.
- (4) Arrah drainage scheme.
- (5) The Northern and Southern foreshore sections of the Howrah drainage system.
- (6) The Darjeeling sewage scheme.
- (7) Puri water works. The water is to be pumped from five wells in the vicinity of the railway station to a service reservoir on the Markunda road. Initial cost Rs. 2,97,186. Work on one well had been begun.
- (8) Murshidabad water works. Supply 120,000 gallons filtered water a day; initial cost Rs. 1,50,000; cost of maintenance Rs. 7,000 a year.

During the year a B. E. student satisfactorily completed his practical training in sanitary engineering and obtained a certificate. Three other B. E. students have availed themselves of the scholarships this year and are working under the Sanitary Engineer of the province.

By a notification, dated the 6th May 1908, the local Government ordered the reconstitution of the Sanitary Board as follows :—

A member of the Board of Revenue	...	President.
The Chief Engineer, Irrigation Department	...	} Members.
„ „ Buildings and Roads Branch	...	
Public Works Department	...	
The Sanitary Commissioner	...	
The Sanitary Engineer	...	Secretary.

146. The total income of the 44 municipalities, two stations and four unions in 1908, including opening balances, was Rs. 19,31,207, of which 47·94 per cent. was spent on sanitation, compared with 47·04 per cent. of Rs. 18,78,711 in 1907. Under the main heads of expenditure, Rs. 5,42,035 were spent on conservancy, including establishment, road watering, etc., Rs. 1,55,142 on water supply, and Rs. 39,060 on drainage.

The principal schemes in progress are the following :—

At Dacca the conservancy scheme for the removal of night soil from central depots by means of tramways to a trenching ground at a distance of five miles from the city has been practically completed at a cost of about Rs. 3,00,000.

Schemes for improving the water supply of the station at a cost of Rs. 5,00,000 and for the surface drainage of the civil station at a cost of Rs. 1,81,270 are being considered.

A large reclamation, drainage, and also a sewage scheme, to cost from Rs. 20 to 25 lakhs are being considered.

At Chittagong artesian borings having proved successful, two 6" wells are being sunk from which it is hoped a water supply will be obtained.

At Narayanganj the water supply works were completed and are giving satisfaction.

At Mymensingh improvements in the water supply and a drainage scheme are under consideration.

At Rampur Boalia and Nator experimental borings for water have been made.

At Rangpur a drainage scheme is under consideration ; and at English Bazar work on a scheme has been begun.

At Imphal, the capital of Manipur, and at Haflong, in the North Cachar Hills, water supply schemes are being carried out ; and at Shillong and Gauhati improvements in the water supply are contemplated.

Drainage schemes are being drawn up for Gauhati, Dibrugarh, Golaghat, and Silchar, and schemes for the water supply and drainage of Barisal, Nator, Faridpur and Chandpur are under consideration.

Expenditure to the extent of Rs. 1,72,470 was incurred by district and local boards, Rs. 1,11,202 was spent by private individuals, and Rs. 59,000 was given as grants-in-aid by the Sanitary Board—most of this money was devoted to improving rural water supplies.

147. Many of the subjects which were considered by the Board have been noted above. Besides those the Board considered and reported upon the Government of India's proposals regarding the formation of a provincial sanitary service, the revision of the constitution, functions and powers of the Sanitary Board, and an increase in the number of Deputy Sanitary Commissioners.

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A scheme was drawn up for the purpose of effecting the improvement of the supplies of water in the Gauhati sub-division of the Kamrup district, which were seriously injured by the earthquake of 1897. The scheme is estimated to cost Rs. 30,000 annually for five years. A similar scheme on a smaller scale has been drawn up by the Barpeta Local Board.

The Board were given authority to relax, in cases of necessity, the conditions in respect of local contributions under which grants-in-aid for the improvement of water supplies are distributed, and demands for money have consequently increased.

148. "Activity in sanitary matters," it is noted by the provincial Sanitary Commissioner, "was a prominent feature of the year;" but this, so far as concerns the municipalities, was almost limited to the extension of

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existing works and progress with those already in course of construction, for the total cost of the projects approved by the Sanitary Board was only Rs. 1,66,815. During 1907-08 the municipalities spent 54 per cent. of their income on conservancy, plague measures, water supply and drainage, but this includes capital charges which were very high in Mussoorie and Almora. The expenditure on water supply in the eight towns with large installations was Rs. 10,73,591 ; on drainage works the total expenditure was Rs. 6,03,516.

Improvements were effected in the water supply at Benares, and progress was made with the Mussoorie hydro-electric scheme. A scheme for improving the pumping plant at Cawnpore at a cost of Rs. 6,00,000 was under consideration. At Allahabad a scheme for an unfiltered water supply to cost Rs. 3,83,292 was submitted. Extension of the Agra water works was discussed ; and means to improve the Naini Tal supply were investigated.

The Moradabad drainage project to cost Rs. 4,81,457 was completed and sanctioned and work was started in January 1909. The drainage of Hathras (Rs. 1,84,050) was completed. The revised project for Jaunpur (Rs. 4,66,007) was completed and sanctioned, and work was commenced on a portion of the project, to cost Rs. 1,50,000, which is all the municipality could finance.

Six other projects, costing in the aggregate Rs. 11,25,026, were sanctioned and several others still await sanction. Four projects, including the Allahabad drainage works (Rs. 17,00,000), to cost in all Rs. 29,16,716 were prepared by Mr. Lane Brown, but it is stated that these require revision.

Thirteen other municipalities have applied for drainage schemes.

The sullage farm at Agra was reported on by a special committee, which found that it was not injurious to the health of those residing in its neighbourhood and that, if properly worked, it should cause no nuisance.

149. The Sanitary Board met three times during the year. The most important matter considered by them was a letter from the Government of India regarding a scheme for improving the sanitary services.

150. Excluding opening balances, the total revenue of the municipalities in 1907-08 was Rs. 60,76,030, and of this Rs. 29,49,278, or 48.54 per cent., was spent on public health and convenience, including Rs. 5,16,196 on water supplies, Rs. 2,50,701 on drainage, and Rs. 7,36,071 on conservancy, road cleaning, watering, and latrines.

The following notes refer to the principal works of sanitary improvement undertaken or about to be undertaken in the province. At Lahore the twelve new wells in extension of the existing trench wells at the head works of the Lahore water supply were almost completed at a cost of Rs. 78,000. At Simla the hydro-electric scheme to utilise the water power of the Sutlej at Nauti Khud to increase the water supply and light the station was approved by the Government of India, and near the end of the year a special Public Works Division was opened for the purpose of preparing a fair project and carrying out the work. At

Ludhiana the water works scheme (Rs. 4,30,468) was nearly completed, and the works were handed over to the municipality. At Amritsar the work of intramural drainage was begun. At Delhi the intramural drainage works were finished and handed over to the Municipal Committee; and the suburban drainage project, to cost Rs. 3,79,000, was begun. Five minor works, including drainage at Jhelum and Hazro, and water supply to the Remount Depot at Sargodha were completed during the year. There were in progress of construction nine schemes including water supply and drainage of Campbellpur and Pind Dadan Khan, and drainage of Bahlwal (Rs. 50,110), Sangla (Rs. 37,737) and Majitha (Rs. 7,923). A number of other estimates, the most important of which was for the drainage of Chiniot (Rs. 59,000, sanctioned) were prepared.

151. The Sanitary Board met three times during the year and discussed the various schemes of municipal improvement brought before them. They allotted from the lakh of rupees placed at their disposal by Government, sums to various towns in aid of drainage schemes. They considered the proposals of the Government of India for improving the sanitary services, and offered certain suggestions to the local Government.

152. No new sanitary work of any magnitude was carried out during the year; but owing to handsome grants received from Government, the municipalities of Peshawar and Dera Ismail Khan were able to entertain an Assistant Surgeon each as assistant health officer, whose supervision has effected considerable improvement in the sanitation of those towns. The administrative medical officer has a special word of praise for the management of sanitary matters at Kohat which has been fortunate in securing as honorary secretary an Indian gentleman who understands and takes a lively interest in sanitary administration.

153. The following were among the works carried out by the Public Works Department during the year. The extension of the catchment area of the Kalapani tank at Amraoti at a cost of Rs. 1,28,000. In connection with the Jubbulpore water works extension, the dam of the reservoir was raised by three feet nine inches, a length of five miles of 24" main was laid and the distribution system was extended. At Khandwa the flood escape and regulator on the Ajanti feeder channel were completed. At Badnera the drains are completed, and at Jubbulpore the construction of side drains from the Nanhai Phatak to the main outfall drain commenced in 1907 was completed. Excluding opening balances etc., the income of the head-quarters' municipalities rose from Rs. 13,50,593 in the previous year to Rs. 14,09,904, and the percentage spent on sanitation from 42.72 to 59.47.

The provisions of the Village Sanitation Act were applied to two villages in the Chanda district. They were not withdrawn from any village.

154. The Sanitary Board met at fourteen head-quarter towns. The work done under their auspices was mainly in connection with the improvement of village sites and water supplies.

155. In the absence of information as to the income and expenditure, the following has been extracted from the General
 Madras.

Municipal Review of District Municipalities in the Presidency for 1907-08. Excluding the opening balance of Rs. 11,78,091, the total income of the year amounted to Rs. 40,52,060, against Rs. 39,04,647 in the previous year. Under the head "Public Health and Convenience" the expenditure on water supply was—the figures in brackets are for the previous year, capital outlay Rs. 1,58,169 (1,09,998), establishment, etc., Rs. 1,81,430 (1,84,096); Drainage, capital outlay Rs. 35,865 (67,147), establishment, etc., Rs. 38,375; conservancy, including roads and plague, Rs. 9,18,246 (9,37,904). The allotment for sanitation by District Boards was Rs. 10,35,567 against Rs. 8,25,374 in the previous year.

The provincial Sanitary Commissioner points out that sanitary progress in most *mofassal* municipalities is rather slow ; in many cases this is due to want of money, but in others the councils do not display any great ability in the management of their affairs and do not receive anything like the full value of the money expended. Lack of interest on the part of the municipal councils leads to neglect of their work by sanitary inspectors, while the practice of employing those officials to carry out duties other than those proper to their office, although contrary to the orders of Government, is in force in many municipalities and greatly detracts from the quality of the sanitary work done.

The number of districts administered under the Madras Local Boards Act was 23, and Rs. 10,35,567 were allotted for sanitary purposes, but less than half was spent during the first nine months of the year.

The following major works were being carried out by the Public Works Department during the year : Berhampur water supply (cost, Rs. 3,11,000), Bezwada water supply (Rs. 3,11,750), Salem water supply (Rs. 8,10,535), Periyakulam water supply (Rs. 1,62,670), Gudiyattam water supply extension (Rs. 22,000), the building of a service reservoir at Trichinopoly (Rs. 63,300). The execution of the Ootacamund drainage works (Rs. 3,85,610) and of the Cocanada water works improvements (Rs. 43,760) were transferred to the Public Works Department.

The Sanitary Engineer carried out the following : Cuddapah water works improvements—the new gallery was excavated, but owing to slips, work was stopped pending further investigations. At Kumbakonum boring was carried to a depth of 311 feet, and the yield of water proving satisfactory, arrangements were made to obtain a temporary supply for the Mahamakam festival. At Kodambakkam an experimental well, ten feet in diameter, was completed, but the supply of water was unsatisfactory. At Saidapet arrangements were made to acquire land outside cantonment limits for the head works of the water supply.

The investigation of fifteen schemes was approved by Government, namely, water supplies for Vaniyambadi, Rajahmundry, Mangalore, Palamcottah, Ellore, Ongole and Negapatam, and the drainage of Mangalore, Negapatam, Anakapalle, Calicut, Vellore, Rajahmundry, Srirangam and Nellore.

156. During the year the Board examined schemes estimated to cost in the aggregate Rs. 7,28,944, the most important being the following :—the water supply of Masulipatam at
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a cost of Rs. 3,11,900, and the extension of the Ootacamund drainage works at a cost of Rs. 48,000.

157. Excluding Bombay City, there were in 1908 in the presidency 158 municipal towns, of which the aggregate net income was Rs. 79,92,502. The amount spent on improving water supply, on drainage and on conservancy within municipal limits was Rs. 17,35,772. There were 25 District Local Boards and 211 *taluka* Local Boards, with a total income of Rs. 64,06,055, of which Rs. 3,75,426 were expended upon water supplies and drainage.

The Bombay Village Sanitation Act was in force in 265 villages. The success of the Act appears to vary in different parts of the province; in the Western and Central Registration Districts some good has resulted, but in Gujarat and Sind the Deputy Sanitary Commissioners do not think villages in which the Act is in force show any improvement over other villages.

The following were the more important works in progress during the year—

Pandharpur water supply. A project to pump water from wells in the bed of the river Bhima, a mile above the town into a service reservoir whence the water will be distributed by gravitation, was sanctioned by Government who provided Rs. 2,00,000; work was begun at the end of the year. The drainage works were continued. At Dhulia the filter beds were completed at a cost of Rs. 31,923. At Ahmedabad it has been found necessary to provide for new wells and additional machinery at the head-works of the water supply. Progress was made during the year in connecting the densely populated portion of the city with the sewerage system. At Karachi the water supply distribution was improved, and the Shone sewerage system extended. At Hyderabad a scheme was prepared by the municipality for connecting the two outfalls and the disposal of the sewage and Rs. 50,000 was allotted, but, pending some changes in the scheme, work was not begun. Land was purchased for a sewage farm. At Surat Rs. 38,520 were expended on the installation of new engines for the water works.

Water supply works for Dharwar and Hubli were sanctioned, but work was not commenced; and the following projects were in preparation, water supplies for Nasik, Ahmednagar, Hyderabad (improvement), Sukkur, Bijapur, Broach, Bulsar, Dholka, Godhra, Thana and Viramgaon and a complete project for the drainage of Bhusaval.

158. The Board held three meetings during the year at which they dealt, among other matters, with schemes for improvements to the Pandharpur water supply and for providing water supplies to Dharwar, Nasik and Hubli, and also considered questions in connection with water supplies for certain towns.

159. Excluding Rangoon, the income of the municipal towns in Burma amounted in 1908 to Rs. 33,33,574 and the total expenditure on sanitary works was Rs. 12,84,343, or 38·53 per cent. of the income. The income of the non-municipal towns is not stated, but they spent 45·18 per cent. of it on sanitary works. The proportion of District Funds and District Cess Funds devoted to sanitation was 7·88 per cent. The local Government made considerable contributions to certain schemes, including a

grant of Rs. 52,000 to Mandalay for the purpose of regrading the channel of the Shwetachaung Canal, Rs. 50,000 to Mandalay and a like sum to Prome for the improvement of congested areas. A number of projects were either in process of completion or completed and awaiting sanction, including water supply schemes for Mandalay, Bassein, Monywa, Minbu and Tavoy, conservancy schemes for Minbu, Danubyu, Kyaiklat, Pyapon and Wakema, and a sewage scheme for Rangoon Cantonment. The water supply scheme for Pegu and the drainage scheme for Moulmein were examined and reports upon them submitted.

160. The Sanitary Board met once during the year and considered the drainage and conservancy schemes for Kyaiklat.

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They also considered letters from the local Government regarding the improvement of the sanitary services in India and the functions of the provincial Sanitary Board, and furnished the local Government with their opinions regarding the constitution and functions of the provincial Sanitary Board.

161. During the year 1908-09 the expenditure on ordinary military works was Rs. 86,43,506 against Rs. 83,26,534 during the

Military Works.

year preceding ; on reorganisation Rs. 25,76,727 against Rs. 46,82,296 ; and under special demands Rs. 12,71,870 against Rs. 14,71,934.

Details regarding new works and improvements in some of the more unhealthy cantonments, will be found in the statements appended to Tables V and XXX at the end of the volume.

SECTION IX.

GENERAL REMARKS.

162. The orders promulgated by the Government of India at the end of September 1906, which were detailed in paragraph 175 of this report for 1905, have annually been notified as the terms on which pilgrimage to the Haj is permitted. In a notification dated the 13th July 1908, the orders were repeated with the intimation that they will continue in force till further notice.

For the pilgrim season 1907-08, all pilgrim ships were thoroughly cleansed and freed from rats by the Clayton process under the personal direction of the Port Health Officer, Bombay, and the pilgrims themselves were subjected to medical inspection, their clothing and bedding being thoroughly disinfected before embarkation. In the reports of the Port Health Officer, of the Protector of Pilgrims, Bombay, and the report on the Camaran Lazaret, it is stated that 25 ships conveyed the pilgrims from Bombay, but the three reports differ as to the actual number of pilgrims who undertook the Haj, the numbers being 21,867, 21,766 (including 219 infants) and 21,813, respectively. It is said that some of the 21,813 pilgrims mentioned in the Camaran report were embarked at Aden. All the ships were medically inspected at Perim, but it was not found necessary to land any pilgrims for detention at the observation camp. During the voyage 87 deaths occurred among the Indian pilgrims, the increase being attributed to a greater number than usual of poor, old and debilitated persons undertaking the Haj. During the period of detention at Camaran, 63 out of 102 deaths occurred among pilgrims from India. Cholera appeared at Camaran among the pilgrims carried by the "Islami" which left Bombay on the 31st October and arrived at Camaran on the 12th November 1907, and also among those carried by the "Zamania," which left Bombay on the 18th and arrived at Camaran on the 27th November 1907. These outbreaks and their bearing on cholera in the Hejaz are described in a subsequent paragraph.

The accommodation for the segregation of pilgrims at Camaran is said to have been inadequate and its extension at an early date is recommended. The period of quarantine for pilgrims from the east has been reduced from five to three days, but for Indian pilgrims it has been reduced only from ten to eight days, including one day for disinfection, debarkation, etc.

The Haj report for 1907-08 records that cholera was present in Mecca before pilgrims from the cholera stricken steamer "Islami" were landed at Jeddah, and that both towns were in a deplorably dirty condition at the time of the pilgrimage; that no steps were taken to protect the water supply of "Ain-Zubeida" from contamination; and that the hospital arrangements at Mina, Mecca and Jeddah were inadequate for cholera patients. It is estimated that of a total of 140,000 pilgrims, 21,000 died of cholera in the Hejaz in a period of four months. It is said that great hostility is being shown by the Bedouins to the Hejaz railway and that the roads were unsafe owing to their depredations. Camel hire has risen enormously, from Rs. 50 to Rs. 150 for a camel in the last fifteen years. About 700 destitute pilgrims were repatriated from Jeddah by charity.

The Indian pilgrims returned to Bombay in 24 ships which brought in all 18,351 pilgrims. On the homeward voyage 340 deaths occurred, due chiefly to old age, general debility, privation, pneumonia, dysentery and diarrhœa. Eighteen ships had among them during the voyage, 7 cases of plague, two of cholera, 156 of small-pox, two of chicken-pox and one of measles. Of the small-pox patients, 50 were landed at Aden, one at Muculla, 13 died on the voyage and 92 were landed at Bombay and sent to hospital. Vaccination was offered to the pilgrims among whom small-pox occurred, but was refused by all. One patient suffering from plague and two patients suffering from cholera were landed at Aden; and the ships on which cases of plague occurred were thoroughly fumigated by means of the Clayton process. The clothing and bedding of 14,599 pilgrims among whom infectious diseases occurred were disinfected, after which those pilgrims were taken over by the Protector of Pilgrims for despatch to their homes. The effects of 1,660 crew of the infected ships were also disinfected.

163. In November 1907, seven cases of illness, diagnosed as cholera, occurred at Camaran among the pilgrims of two pilgrim ships from Bombay; and towards the end of the year the Hejaz was infected with cholera and a severe outbreak attended by a heavy mortality ensued.

The occurrence of cholera at Camaran and in the Hejaz in 1907 is of peculiar interest, because the circumstances of the cases at Camaran appear to throw additional light upon the epidemiology of cholera, and because it has been stated on the one hand, that the Hejaz was infected in 1907 by Indian pilgrims, and on the other, that the freedom from cholera in recent years of Camaran and the Hejaz has been due to the detention of Indian pilgrims in the plague observation camp at Bombay. The several accounts of the infection of the Hejaz do not agree with each other, and it is not easy to get at the facts; but the narrative of events at Camaran is fairly clear, although there is room for difference of opinion regarding their interpretation.

The pilgrim ship "Islami" with 826 pilgrims on board sailed from Bombay on the 31st October and arrived at Camaran on the 12th November. Between the 15th and 20th November three cases of cholera occurred among her pilgrims in the lazaretto.

The pilgrim ship "Zamania" left Bombay with 1,221 pilgrims on the 18th November and arrived at Camaran on the 27th. The pilgrims were disembarked and placed in the lazaretto apart from the "Islami's" pilgrims. Between the 29th November and the 12th December four cases of cholera occurred among the "Zamania's" pilgrims.

In the case of the "Islami," then, the first case of cholera occurred at least fifteen days after the vessel left Bombay, and in the case of the "Zamania," eleven days elapsed between the departure from Bombay and the occurrence of the first case of cholera.*

Dr. Delpino, the Director of the quarantine station at Camaran, suggests that it is possible that one or two cases of cholera occurred on board the "Islami" during the voyage from Bombay to Camaran, but he is sure that no case of cholera occurred on board the "Zamania," and that the "Zamania's" pilgrims were not infected by the "Islami's" pilgrims.

* An account of similar outbreaks will be found in this Report for 1895, p. 182, para. 202,

Both vessels were apparently healthy when inspected at Aden and Perim, and the evidence seems to be against the occurrence of cholera on either of them.

The water-supplies of both vessels were examined bacteriologically at Camaran. A harmless vibrio was isolated from the water of the "Islami," but no vibrio was found in the water of the "Zamania" which was repeatedly examined. The diagnosis of cholera in those attacked was established bacteriologically and the problem was "where did they become infected." Excluding the ships and Camaran, Dr. Delpino believed that the germs of cholera were brought from India in the intestines of the pilgrims themselves, and he attributed the cholera at Camaran to a *microbisme latent*. Everyone is familiar with the fact, first pointed out in 1893,* and now a commonplace of the text books, that in times of cholera epidemics a considerable proportion of the people exposed to infection carry in their intestines the germs of cholera without manifesting any sign of the disease. These people are temporarily or permanently immune, and it is a generally accepted belief that when the germs carried by them reach a susceptible host they give rise to cholera which then spreads from the second host in the ordinary way. Dr. Delpino appears to be of the opinion that the vibrios carried by the Indian pilgrims were not virulent, and that for some reason they became virulent at Camaran and caused attacks of cholera *in the carriers themselves*. Apart from the circumstances of the cases among the "Zamania's" pilgrims especially, he was supported in the belief by the discovery of the true vibrios of cholera in the stools of two Bokharan pilgrims from the "Islami" who were in hospital on account of intestinal catarrh and dysentery, respectively, and in the stools of an Indian pilgrim from the "Zamania," who was in hospital suffering from slight catarrhal dysentery. None of these three pilgrims showed any sign of cholera. It is true that cholera vibrios were not found in the stools of those attacked before their attack, but such a discovery has been made elsewhere. Professor W. Kolle found cholera vibrios in the apparently normal dejections of two members of a family, in which a case of cholera had occurred. The two cholera carriers were removed to a hospital where infection was out of the question, and several days afterwards developed a fairly severe and slight attack of cholera, respectively.†

Immunity and virulence are, of course, relative terms, but it would appear that "cholera carriers" range between two extreme conditions, those whose escape is due to immunity owing to an idiosyncrasy that protects them against a virulent microbe, and those who, although susceptible, escape because the microbes harboured by them are not virulent. The first class are a danger to the community in which they live so long as they continue to excrete virulent microbes, the second class do not become dangerous until some cause—whether specific or not—confers virulency on the microbes they are carrying.

The "Islami" was detained at Camaran until the 19th December, after which she left for Abou Saad where fresh cases of cholera are said to have appeared. Her pilgrims landed at Jeddah on the 21st December and the "Zamania's" pilgrims landed there the same day.

*Professor Günther in his *Einführung*, 6th edition, page 649, quotes papers by Canon, Lazarus, and Pieltcke, *Berl. klin. Wochenschrift*, 1892, page 1216; and by Rumpel, *Deutsche med. Wochenschrift*, 1893, No. 7. See also R. Koch, *Zeitschrift f. Hyg.* Bd. 14, 1893, page 321.

† *Zeitschrift für Hygiene und Infektionskrankheiten*, Band 18, page 43.

The accounts regarding the infection of the Haj are conflicting. Mr. Consul Monahan states that a case of illness suspected to be cholera occurred in Mecca in the person of an African pilgrim on the 14th December, and that the presence of the disease, at first confined to African pilgrims, was confirmed a few days later. Dr. Delpino states that infection came from the north; and Dr. Bruce Low in the narrative compiled for the *Report of the Medical Officer to the Local Government Board*, ascribes the infection to Russian vessels. Whatever the facts may be, it seems certain that the Hejaz was not first infected by Indian pilgrims.

It has been pointed out that Camaran and the Hejaz were free from cholera during the period when Indian pilgrims were either prevented from going there (1897) or were detained in an observation camp in Bombay prior to their departure (1898-1905), that in the six years before this period cholera appeared at Camaran on eleven occasions, and that it appeared again after the abolition of the observation camp, and it has been argued therefore that the detention of pilgrims in the observation camps at Bombay prevented the outbreak of cholera at Camaran. In 1906 there was no camp, and although the number of pilgrims from Bombay attending the Haj of 1906-07 was the greatest on record, no case of cholera occurred at Camaran. In 1907 there were, as we have seen, a few cases of cholera among Indian pilgrims at Camaran, and the general health of the pilgrims, as evidenced by the mortality that occurred among them on the voyage, was much worse than usual. The higher mortality among the Indian pilgrims was ascribed by Dr. Delpino to the larger proportion of poor, old and cachectic persons among them; among the Javanese and other Malay pilgrims a considerably greater increase in the mortality was ascribed to the warmer weather in which part of the voyage to the holy places was made. It is not impossible that the change of season, owing to the recession of the Haj, had to do not only with the deterioration of the pilgrims' health in 1907-08, but with the occurrence of cholera.

In the eleven years 1897-1907, when the Hejaz was free from cholera, the Haj fell between the 13th May and the 25th January. To get similar dates we have to go back to the ten years 1865-1874, when the Haj fell between the 7th May and the 29th January. Cholera was present in Europe during those ten years, but no importation by ship from India was alleged, indeed there is no reason to suppose that cholera was imported into Europe from India between 1865 and 1882.

If we accept Dr. Delpino's view that latent cholera was carried from Bombay by pilgrims to Camaran and there became manifest, possibly, as suggested by Mr. Vice-Consul Richardson, owing to the pilgrims partaking of unsuitable food, it is clear that a detention of five days at Bombay would not have prevented the outbreak, and that detention in an observation camp would be no safeguard against similar outbreaks in the future, and would be of no advantage in that respect except in so far as additional time would be afforded for some chance cause to transform the latent into active cholera. It seems clear also that the more hygienic the conditions of detention the less chance there would be of the latency being transformed.

164. The following is a brief summary of the work done at the *Central Laboratories*, *Research Institute*, Kasauli, during the year under report.

The enquiry in connection with the etiology and mode of spread of enteric fever was brought to a close in the early part of the year, and the conclusions were published in No. 32 of the Scientific Memoirs (new series). In May an investigation of dysentery was taken in hand and is still in progress, the subject, after preliminary enquiries at Kasauli, being studied at Bombay by two of the officers attached to the Central Institute. In June experiments were commenced in connection with the investigation of lathyrism. The preparation and keeping properties of bacterial vaccines were also investigated and definite conclusions, based on a large number of experiments, were arrived at, which may be summarized as follows. (1) Heat is a harmful agent to use in the sterilization of bacterial vaccines and should therefore be avoided. (2) Carbolic acid to the extent of .5 or .6 per cent. is sufficient to render a bacterial vaccine sterile in 24 hours or less, and is the least harmful agent that can be used. (3) Bacterial vaccines prepared by this method give rise to a higher immunising response than when heat is used, and they also retain their original properties unimpaired for a prolonged period. The examination of 1,006 specimens of a miscellaneous character was conducted, a diagnosis and report being given in each case. Advice and assistance was afforded in 114 instances, many of them involving the despatch of cultures and directions. The standardisation of curative sera and bacterial vaccines occupied considerable attention, and the following descriptions of sera were issued, all, except anti-tetanic serum, which is imported from Europe, being prepared at the Institute.

(1) Anti-venomous serum	...	1,159	doses.
(2) Anti-diphtheritic serum	...	1,222	„
(3) Anti-tetanic serum	..	860	„
(4) Anti-typhoid vaccine	...	4,035	„
(5) Anti-staphylococcus vaccine	...	300	„

In addition, 109 bottles of bile medium were prepared and forwarded to applicants in order that cultivations from the blood of persons suspected to be suffering from enteric fever might be made.

The *Bombay Bacteriological Laboratory* was, as usual, conducted as (a) the Plague Laboratory for the whole of India and (b) the provincial Bacteriological Laboratory. As regards the work of the former, in spite of the fact that the plague epidemic of 1908 was one of the mildest since the advent of the disease, 533,315 doses of anti-plague vaccine were issued during the year, compared with 620,923 doses issued in 1907, and 176,651, 315,905 and 115,161, respectively, in the years 1906, 1905, and 1904. The number of doses issued during 1908, when plague was not severe, points to the increasing popularity of the prophylactic. It is unfortunately not possible to obtain accurate statistical information as to the results obtained from the use of anti-plague vaccine, but the report contains selections from a large number of replies received to a circular letter issued by the Director, which afford ample evidence in favour of the measure.

In the previous year experiments had been conducted with the Clayton gas apparatus for destroying rats in houses, which failed mainly because the structure of Indian houses freely allows the gas to escape from innumerable apertures, especially in the roof, the concentration of the gas near the roof being so low as not to be lethal to rats. During the year under report experiments were conducted with a small type of Leybold's apparatus specially

designed for the destruction of rats in houses. The machine generates a poisonous gas (*carbon monoxide*), and while effective in killing rats had little or no effect on rat-fleas. As a rat-killing gas it has the advantage that the rats were not frightened away and did not attempt to escape from the treated rooms. The fact that the presence of the gas in quantities fatal to human beings cannot be detected, renders it unsuitable for the disinfection of houses. The Clayton and Leybold's disinfecting gas machines fail to generate and deliver into a room of the ordinary Indian dwelling a large quantity of a fairly concentrated gas in a comparatively short space of time. Experiments, which afford some promise of success, are being undertaken with a view to obtain some gaseous substance which is poisonous to rats and fleas and can be easily generated and delivered into an average Indian dwelling in sufficient quantity to fill a room with an effective gas in a few minutes.

Experiments were also conducted with certain substances and plants to obtain an effective insecticide or insectifuge which could be easily applied and readily and cheaply obtained, and while not being injurious to man or to clothing, would kill fleas. A final conclusion has not yet been arrived at. Experiments with disinfectants on the plague bacillus and on rat-fleas did not yield fruitful results. Some experiments were also made to test the efficiency of various kinds of rat traps. On behalf of the Health Officer, Bombay City, 110,512 rats were subjected to *post mortem* examination and 13,489 were found infected with plague. During the year second editions, of 5,000 copies, were published of the pamphlets by the Director entitled "*The preparation and use of anti-plague vaccine*" and "*The cause and prevention of the spread of plague in India*".

The work done at the provincial laboratory included the examination of 766 pathological fluids and discharges, the examination of 90 specimens of morbid growths and the brains of 37 rabid animals. For the manufacture of antivenene which is carried out at the Central Research Institute, Kasauli, venom was extracted from 106 snakes. Experiments were conducted with a reputed remedy for snake bite, called "Surucuina" and the preparation was found to be of no value. The research work conducted at the laboratory included an enquiry into malarial fevers in Bombay City, the results being so important that it was considered advisable to entrust the work to a selected officer who could devote his whole time to it. The preliminary enquiries had shown that *Anopheles stephensi* is a malaria carrier in nature, a fact not previously known. An enquiry into relapsing fever was also conducted, but in the absence of the services of a special officer a thorough investigation was not possible. Assistance and advice were afforded to medical practitioners and others. Bacteriological material and equipment were supplied to medical officers in various parts of India, as also certain sera which are stocked for issue, and certain vaccines prepared at the laboratory. Two courses of instruction were given to hospital assistants and many applications to attend the class were received from medical practitioners not in Government service.

The year under report was one of transition at *the King Institute of Preventive Medicine, Madras*, and the work done is therefore not comparable with that of the previous year. An important change made was the transfer, in July, of the pathological part of the work undertaken by the Institute to the Pathological

Department of the Madras Medical College, and for it was substituted investigation more closely connected with the sanitation of the Presidency. A chemical laboratory was established at the Institute during the year and proved very useful. In spite of these changes the number of specimens examined during 1908 numbered 2,907, compared with 1,893 in the previous year. The Director refers to the notable feature that in the examination of specimens for malaria, 85 per cent. yielded negative results, and suggests that this was due to the practice of administering quinine before obtaining films of the blood. The chief work done was connected with the investigations instituted by Major W. W. Clemesha, I.M.S., Acting Sanitary Commissioner for Madras, on town water supplies of the Madras Presidency, which absorbed almost all the resources of the laboratory as regards both staff and material. Major Clemesha's investigations are of great importance as an attempt to determine bacteriological standards of purity for potable waters in India. The results of the investigations have been published as Appendix I to the Annual Report of the Institute for 1908 under the title, "*A Study of the bacteriology of drinking water supplies in tropical climates*".

The usual courses in Minor Sanitary Engineering and in Vaccination were held during the year, and attracted 43 and 25 students, respectively.

The work of the Vaccine Section of the Institute has been noticed in Section VII of this report.

At the *Pasteur Institute, Kasauli*, the number of patients afforded anti-rabic treatment during 1908 attained the record figure of 1,389 compared with 1,349 in 1907. This is the more remarkable as there is now a Pasteur Institute for Southern India at Coonoor in the Madras Presidency. The total number of patients treated excludes 95 persons who applied for advice but whom it was considered unnecessary to treat. Of the total patients 342 were Europeans compared with 433 the year before, and 1,047 were natives compared with 916. From the British Army there were 131 patients against 181 in 1907, and from the Native Army (including British officers, their wives and children) 99 against 151, while European civilians numbered 159 against 186, and Native civilians 1,000 against 831. Patients came from all provinces and from the Native States of Rajputana and Kashmir—two patients even came from Madras although there is now an Institute nearer at hand. The percentage of failures to the total number treated fell from 0.44 in 1907 to 0.36 which is the lowest rate on record at the Institute. There were 169 cases of bites from jackals, most of which were very severe and multiple.

The work of the Institute as the provincial Bacteriological Laboratory for the Punjab included the examination of 50 tumours and of 372 specimens in connection with the diagnosis of typhoid and paratyphoid fevers, malaria, and tuberculosis.

At the *Pasteur Institute of Southern India, Coonoor*, 180 persons were treated during the eleven months ending the 29th February 1908 and 340 during the year ending the 28th February 1909. In the first period there was no failure and in the second there were two failures, the percentage being .58. In one of the cases of failure a month had elapsed between the date of being bitten and the date when treatment was begun. The persons treated during

1908-09 included 27 from the British and Indian armies, (among the number being 4 British officers, 11 European soldiers, and 7 Native soldiers) and 34 European and 39 Eurasian members of the civil population. With the exception of one Eurasian and eight natives from Bengal, all the patients were from British or Foreign territory or from Native States in Southern India, and it may be mentioned that 23 patients were from Ceylon, one from Goa and 14 from French India.

165. *Plague*.—The Plague Research Commission with its head-quarters at the Bombay Bacteriological Laboratory, continued
Special enquiries. their investigations into the etiology of plague.

The Commission was able to collect further evidence in support of the view that the rat-flea is the chief disseminator of the disease, and was able to show that the differences in the seasonal prevalence of plague in places like Poona and Belgaum, as compared with Bombay and places in the Punjab, can be explained by the difference in the seasonal prevalence of rat-fleas. The Commission was also able to show that the deductions drawn from certain experimental epidemics among guinea-pigs in godowns are also permissible from similar experiments in which wild rats were substituted for guinea-pigs. A large amount of evidence relating to past epidemics in certain districts of the Punjab and the United Provinces tended to prove that the disease is spread in those districts chiefly by the importation of infection from infected to uninfected areas. The Commission was also engaged in an extensive trial of the efficiency of anti-plague serum. Reports of the work done by the Commission will, in due course, be published by the Advisory Committee for Plague Investigation in India.

Dysentery.—The enquiry which is being carried out by officers of the Central Research Institute, Kasauli, was continued at Bombay, and it is now intended to investigate the disease in jails, etc., in Bengal.

Jail dietaries.—The investigations entrusted in January 1908 to Captain D. McCay, I.M.S., Professor of Physiology, Medical College, Calcutta, regarding the suitability of jail dietaries in Bengal, were continued during the year. The results obtained were of great interest and utility, and it was accordingly arranged that the enquiries made in the Bengal jails should be extended to the jails of the United Provinces and Eastern Bengal and Assam. A report of Captain McCay's investigations in Bengal is in the press for publication.

Malaria.—In July 1908 Captain W. H. C. Forster, I.M.S., began an enquiry into the prevalence of malaria in certain *thanas* of the Purnea and Murshidabad districts of Bengal, and in January 1909, Captain S. R. Christophers, I.M.S., Assistant to the Director, Central Research Institute, Kasauli, was placed on special duty to conduct an investigation of the epidemiology of malaria in the Punjab. An enquiry upon malaria is also being conducted by Major J. C. Robertson, I.M.S., in the United Provinces, and Dr. C. A. Bentley, who relieved Captain A. G. McKendrick, I.M.S., is employed on an investigation of the disease in Bombay City.

At the instance of the Secretary of State a Committee was appointed by the Government of India to enquire into the results of the extensive anti-mosquito operations that have been carried out for some years in Lahore Cantonment. Mr. R. Nathan, C.I.E., I.C.S., was the President of the Committee and Lieutenant-Colonel H. B. Thornhill, C.I.E., I.A., and Major Leonard Rogers

I.M.S., were the members. The enquiry was commenced at Lahore Cantonment on the 21st October 1909.

166. In August 1909 the Government of India addressed the several local Governments and Administrations on the subject of a proposal by the Sanitary Commissioner with the Government of India that a permanent organization should be formed to enquire systematically into problems, both practical and scientific, connected with malaria in India. They pointed out that because it is essential that the people should be induced to adopt the measures that may be most suitable to the areas in which they live, any scheme for an organised attempt to deal with the malaria problem throughout India should be framed in consultation with administrative officers intimately acquainted with local conditions in the various provinces; and they stated that for this reason the Governor-General in Council had decided to convene a Conference to examine the whole question and to draw up a plan of campaign for the consideration of the Government of India and of local Governments. The attendance of certain selected officers was arranged by the Government of India and each local Government and Administration was invited to nominate as delegates (*a*) an administrative officer of experience, (*b*) a medical officer, and (*c*) an Indian gentleman. The Conference was opened at Simla on the 12th of October 1909, by His Excellency the Viceroy and Governor-General, and meetings were held daily until the 18th. The complete report of the Proceedings is now in the press for publication, but it may not be out of place to insert here a copy of the resolutions and recommendations which were passed and upon which action is now being taken.

I.—SCIENTIFIC INVESTIGATIONS.

1. That the Conference is much impressed with the need of further knowledge of the following subjects and recommends that steps be taken without delay for their systematic investigation:—

(1) The distribution of malaria.

(2) The epidemiology and endemiology of malaria including (*a*) meteorological and physiographical conditions, and (*b*) the life history of malaria bearing mosquitoes.

(3) The physiological and therapeutical action of quinine and other remedies for malaria.

2. A critical examination of the vital statistics of each province should be undertaken with the object of ascertaining the different degrees of prevalence of malaria and the areas which may be regarded as typical for the purpose of further test and investigation. In this connection the Conference invites attention to the researches conducted by Captain Christophers in the Punjab.

3. Vital statistics are now collected by villages and are compiled by areas such as *thanas* and *taluks* which are often so large as to obscure the true distribution of malaria. The Conference are of opinion that local Governments should provide for compilation by some smaller units such as, villages, village unions, *zails*, patwari's circles, etc.

The figures thus compiled need not be published but should be kept on record at convenient centres.

4. The Conference considers that the existing vital statistics of provinces will throw much light on the distribution and relative prevalence of malaria if the figures for fever are corrected by the results of test enquiries in selected typical areas. Such test enquiries should be carried out in every province by a special staff under careful supervision.

5. Where investigations into epidemiology and endemiology are undertaken, special attention should be paid to tracts in which malaria is not endemic with the object of discovering the reasons why such localities are free from the disease.

II.—AGENCY BY WHICH INVESTIGATIONS SHOULD BE MADE.

1. The Conference having learnt that the Government of India will appoint a Central Scientific Committee to direct and co-ordinate investigations, and that they will also appoint at the request of local Governments or on the recommendation of the Central Committee officers to carry out investigations, recommends that a local organization to work in consultation with this Central Committee be constituted in each province. The nature of such organization should be settled by the local Government and may take the form of the Sanitary Board.

2. A Conference consisting of the members of the Central Committee and a delegate from each local organization should be held annually at such place as may be convenient for the purpose of reviewing the work done and preparing a programme of future work.

III.—PRACTICAL MEASURES.

A.—Extirpation of mosquitoes.

1. As the extirpation of the anopheles mosquito is obviously the most complete and satisfactory solution of the malaria problem, the Conference recommends that investigations be continuously carried on with the object of ascertaining by what methods this can best be done at a cost which is not prohibitive.

2. The Conference makes the following recommendations regarding the measures for extirpation or reduction of mosquitoes which have been placed before them :—

1. *Drainage.*

(a) In urban areas where the existing surface drains are found to be the chief breeding place of anopheles mosquitoes, a properly graded surface drainage is a most important anti-malarial measure.

(b) Though in rural areas the construction of any system of masonry drains is impracticable on account of the cost, yet it is advisable to improve the surface drainage in malarious localities by removing obstructions and filling up depressions in which water stands and anopheles mosquitoes are known to breed.

- (c) Both in villages and towns the lowering of a high sub-soil water level when practicable is an anti-malarial measure of primary importance.

The deliberations of the Conference have shown that it will not be possible to protect rural areas by any scheme of drainage which is financially practicable, but it has been found that in some highly malarious tracts the level of sub-soil water has been materially lowered with great permanent benefit by drainage operations the cost of which was not prohibitive. Similar schemes should be investigated in each province for highly malarious localities.

- (d) The Conference is unable to make any general recommendation regarding the prohibition of wet cultivation in close proximity to dwelling houses, for while there is evidence of good results having been obtained by that measure in some localities, there is also clear evidence that malaria is in no way a necessary consequence of irrigating land near towns and villages. Every case of the kind requires separate investigation.

When it is established that malaria in a town is due to anopheles mosquitoes breeding in wet cultivation in the immediate vicinity, such cultivation should be prohibited or restricted whenever possible.

- (e) In Italy some success has been attained in filling up marshes by turning rivers on to them and thus reclaiming them by successive deposits of silt, and the Conference draws attention to this method.

- (f) The clearance of jungle and the thinning of over dense tree growth are desirable in all places in the neighbourhood of habitations where these conditions impede drainage and shelter mosquitoes.

2. *Oiling*.—Treatment with petroleum should be restricted to small collections of water which contain the larvæ of anopheles mosquitoes and cannot be filled up, or drained.

3. *Fish*.—It should be ascertained by enquiry and experiment whether the breeding of anopheles mosquitoes is greatly checked by the presence of fish in tanks and other collections of water; and if this is found to be the case, endeavours should be made to introduce suitable fish where their presence is likely to prove beneficial, and to afford protection to them where they exist.

B.—Quinine treatment and prophylaxis.

(1) The Conference adopts the conclusions of the sub-committee, regarding the quantity of quinine required (i) for treatment of malaria and (ii) as a prophylactic.

- (a) Quinine should be given in the form of sulphate or hydrochloride for adults :

- (b) for children some palatable form, such as tannate, is recommended.

(2) Generally speaking, the method of selling quinine by treatments is to be preferred to that of selling by the dose, but in order to meet the wants of the

poor it is advisable that both systems should be maintained. It is suggested that the ordinary size of the tablet should be one of five grains, which is the proper prophylactic dose for adults.

(3) The agency for the sale of quinine should not be limited to postmasters but the services of all grades of officials should be utilized; special attempts should be made to induce private vendors to engage in the business; and the educated classes should be asked to organize means of spreading a knowledge of quinine among the lower classes. The rate of commission should be liberal.

(4) In order to disseminate a knowledge of quinine as widely as possible, recourse may properly be had to moveable camps, itinerant dispensaries, leaflets, notices and advertisements, especially in the vernacular papers, and to teaching in all grades of schools.

(5) The free distribution of quinine should as a rule be resorted to only in the case of severe epidemics. This rule will be open to exceptions at the option of local Governments, especially in backward tracts where quinine is unknown, and in the case of school children in malarious tracts and during the malaria season for prophylactic purposes, provided that arrangements can be made to secure that the quinine is actually taken.

(6) General measures of quinine prophylaxis, such as the sale of Government quinine by all available agencies and the dissemination of a knowledge of the benefits it confers, should be carried out as widely as possible. More specialized and expensive methods, such as moveable camps and the distribution of free quinine to adults and children, should ordinarily be confined to selected areas.

(7) The Conference is informed that the maximum output of the Indian factories is limited to 100,000 lbs. of sulphate of quinine, which would be sufficient to treat about three million people; and that the world's supply has for some years been stable at one million pounds, or enough to treat about thirty millions of people. These facts have an important bearing on the possibility of treating malaria by quinine. In the event of the supply from the Government factories proving insufficient, it will be necessary to purchase quinine in the open market. In any case the Conference think hydrochloride of quinine should be procured by purchase and should not at present be manufactured in the Government factories.

It is desirable that the area under cinchona should be increased.

C.—Education.

(1) The local organization in each province should frame a scheme for instructing the inhabitants of malarious tracts regarding the main facts connected with malaria. Such instructions should be given by lectures, illustrated if possible by magic lantern slides, and by leaflets, and pamphlets in the vernacular languages. Private medical practitioners should also be invited to disseminate a correct knowledge of the subject.

(2) The Education Department should arrange to include in text-books, lessons on malaria and hygiene, and to give similar instruction in normal schools.

(3) The Conference strongly recommends the constitution of divisional and district committees of the nature suggested by Sir Herbert Risley, and of local societies similar to the league started by Mr. King with such success in Gurdaspur. Such committees and societies should consist of both officials and non-officials.

D.—Sanitary Staff.

It is desirable that the Sanitary Department should be organized with reference not only to general sanitation, but also to the suppression of malaria.

E.—Finance.

(1) Each local Government should be invited to make a special allotment of funds every year for the investigation of the problems connected with malaria and measures of prevention.

(2) The Conference recognize that the amount of this allotment will depend upon the state of the provincial finances, but they would urge that the prevention of malaria has a strong claim upon all surpluses and increases of revenue.

(3) Municipal Councils and local Boards should also be urged to set apart funds for the prevention of malaria.

167. In paragraph 84 of this report for 1905, it was mentioned that standard forms had been drawn up and brought into use for the compilation of the annual returns of the health statistics, etc., of the Presidency towns. The uniformity secured for the annual returns does not, however, extend to the other periodical reports of the respective municipal Health Officers. In Calcutta a weekly as well as a quarterly return is published, in Rangoon a monthly report, and in Madras and Bombay a quarterly report. The form of these reports also differs widely and it would be a useful measure if they could be prepared, as far as possible, on uniform lines and designed to afford a concise and clear account of events during the period under report.

168. Since the issue of the last report the following numbers of the Scientific Memoirs have been published by the Sanitary Commissioner with the Government of India:—No. 35, *Blackwater Fever*, by Captain S. R. Christophers, I.M.S., and Dr. C. A. Bentley, No. 36, *Observations on Rabies: with special reference to an atrophic form of the disease occurring in animals*, by Major G. Lamb, I.M.S., and Captain A. G. McKendrick, I.M.S. Attention may also be directed to a recently published work entitled, *Small-pox and Vaccination in British India*, by Major S. P. James, I.M.S.

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Sanitary Commissioner with the Government of India.

APPENDICES

TO THE

Annual Report of the Sanitary Commissioner with the
Government of India

FOR

1908.

TABLE I.—Highest, lowest and mean temperature in shade and its departure from the

Stations.	JANUARY.				FEBRUARY.				MARCH.				APRIL.				MAY.				JUNE.			
	Highest.	Lowest.	Mean.	Departure.	Highest.	Lowest.	Mean.	Departure.	Highest.	Lowest.	Mean.	Departure.	Highest.	Lowest.	Mean.	Departure.	Highest.	Lowest.	Mean.	Departure.	Highest.	Lowest.	Mean.	Departure.
	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
Calcutta (Alipore)	83°6	47°2	64°7	−1°5	94°1	51°2	72°8	+1°6	103°1	60°2	81°7	+1°5	107°1	72°7	90°0	+4°3	101°1	69°2	86°7	+0°7	101°1	74°7	86°0	+1°2
Narayanganj ...	80°5	46°8	64°8	−1°8	89°0	49°8	70°5	+0°2	100°5	59°3	79°2	+0°1	102°0	67°3	86°0	+2°3	97°5	68°8	84°2	+0°7	95°5	71°8	84°1	+0°5
Chittagang ...	81°1	49°4	66°1	−0°8	89°1	52°9	71°0	+0°4	97°1	58°4	78°4	+1°3	94°6	64°9	82°8	+1°5	93°6	67°4	82°2	+0°2	91°1	69°9	81°8	+0°2
Sibsagar ...	73°6	44°2	59°2	−0°7	78°6	48°2	63°1	−0°2	91°6	51°2	70°2	+0°7	93°6	61°2	76°5	+2°1	91°6	66°2	78°6	−0°2	93°6	72°2	82°8	−0°1
Silchar ...	82°0	47°8	64°7	−0°4	88°0	49°8	68°9	+0°8	98°5	49°8	75°9	+1°3	101°5	64°8	82°6	+3°7	95°0	64°3	81°5	+0°9	95°5	71°8	83°7	+0°9
Cuttack ...	87°9	50°7	67°8	−4°5	96°4	54°7	76°7	−1°3	102°4	65°2	83°5	−1°3	110°4	75°2	92°0	+2°0	110°4	73°2	91°3	+0°4	111°4	71°2	87°7	−0°2
Hazaribagh ...	81°7	38°3	59°8	−2°0	87°7	45°3	66°2	−0°1	95°7	50°3	74°6	−1°6	104°7	69°3	88°1	+2°8	106°7	69°3	89°1	+1°8	108°7	71°3	86°6	+2°5
Patna ...	78°5	41°2	58°5	−3°1	84°5	47°2	65°8	−0°1	102°5	53°2	76°2	−1°3	105°5	74°7	89°9	+2°9	109°5	70°7	90°3	+1°3	109°0	71°2	89°7	+1°5
Darjeeling ...	53°3	31°7	42°0	+1°2	54°8	32°2	44°2	+2°4	65°8	35°2	50°9	+1°5	74°3	48°2	59°7	+4°1	69°3	43°2	58°0	−0°3	70°3	53°2	62°0	+1°3
Allahabad ...	81°6	39°0	58°9	−2°3	92°6	44°0	66°6	+0°5	105°6	50°5	76°5	−1°1	112°6	66°5	91°1	+3°0	114°6	76°0	95°6	+2°4	115°6	79°0	96°1	+4°0
Lucknow ...	79°5	37°6	57°5	−2°8	91°0	45°6	65°6	+0°7	105°0	49°6	75°4	−0°6	110°0	65°6	89°6	+3°0	114°0	69°1	93°5	+2°1	115°0	70°6	93°9	+3°0
Meerut ...	77°6	38°8	57°7	−0°1	87°6	39°8	62°8	+1°3	101°6	43°3	71°2	−1°1	108°1	60°8	85°3	+2°0	110°1	65°8	87°6	−0°3	113°1	72°8	94°0	+3°5
Delhi ...	79°7	41°7	58°7	−0°6	89°2	37°2	65°0	+1°7	102°7	48°7	74°2	−0°7	109°7	64°7	88°7	+2°1	112°7	67°7	93°7	+1°2	115°2	80°7	98°3	+5°0
Agra ...	79°0	38°0	58°8	−2°3	90°0	43°5	65°9	+0°5	103°0	49°0	75°0	−2°0	110°0	65°0	88°6	+0°5	113°5	71°5	93°5	−0°9	114°5	77°5	96°7	+2°3
Jhansi ...	88°8	41°1	63°3	−0°4	95°8	48°1	71°1	+2°8?	106°8	55°6	78°1	−1°6	112°8	68°6	93°4	+3°0	114°3	74°6	97°7	+1°7	116°3	80°1	99°2	+5°8
Ajmer ...	80°4	40°2	60°4	+0°6?	91°9	43°2	65°7	+2°1?	102°4	41°2	74°4	+0°1?	107°4	61°2	88°0	+2°6	108°4	75°2	93°3	+1°7?	109°4	75°2	92°9	+2°3
Saugar ...	84°6	35°0	63°5	−0°9	92°6	45°0	69°4	+1°0	101°1	52°5	76°1	−2°2	107°1	67°0	88°8	+1°7	110°1	73°0	92°7	+0°9	109°6	73°5	91°8	+4°1
Jubbulpur ...	86°0	36°3	60°5	−2°3	94°5	40°8	66°6	−0°8	102°0	47°8	74°5	−2°3	109°0	63°8	87°7	+1°4	111°0	71°3	93°4	+1°1	110°5	71°3	92°2	+4°6
Multan ...	76°3	40°0	57°6	+0°9	86°3	40°0	61°8	+1°2	101°3	40°5	71°1	−1°4	109°8	56°5	83°9	+0°1	117°8	63°5	93°1	+1°0	117°3	78°5	97°8	+2°1
Lahore...	76°4	37°2	56°8	+2°0	88°4	38°2	61°1	+2°7	100°4	59°7	69°1	−0°6	109°4	56°7	81°8	+0°6?	114°4	64°2	89°7	+0°5	116°9	70°7	95°0	+1°6
Peshawar ...	70°2	36°4	52°3	+0°8	73°7	34°9	54°7	+0°3	89°7	38°9	63°1	−0°9	94°2	52°9	72°7	−1°1	107°2	59°4	82°7	−1°6	117°2	67°9	94°1	+2°5
Chakrata ...	65°3	29°7	47°5	+4°2	70°3	26°7	47°1	+3°4	76°3	31°7	53°9	+0°9	79°3	42°2	63°0	+1°9	84°3	44°7	66°8	+1°4	85°3	50°7	69°9	+2°8
Indore ...	85°1	41°1	63°5	−1°1	93°6	40°6	67°0	−0°7	103°1	45°1	73°4	−3°1	105°6	63°1	86°4	+1°3	109°6	70°6	89°2	−0°2	104°6	70°1	86°2	+1°4
Deesa ...	90°3	46°4	67°2	−0°2	98°3	41°4	68°9	−2°0	109°3	43°7	77°1	−2°8	111°3	51°9	86°8	−1°2	109°8	71°4	90°8	−1°3	110°8	77°4	92°1	+6°8
Kurrachee ...	83°9	49°2	66°2	+0°5	89°4	44°7	68°6	−0°3	100°9	47°2	74°7	−1°4	101°9	62°2	81°8	−0°1	106°9	73°7	86°0	+0°2	99°9	80°2	88°8	+0°8
Bombay ...	87°5	61°5	76°0	+0°7	90°0	60°5	76°0	+0°3	89°0	63°5	78°0	−1°6	100°0	75°5	83°8	+0°7	92°0	78°5	85°4	−0°4	94°0	77°5	85°1	+1°6
Belgaum ...	88°3	46°6	69°7	−0°8	92°3	43°6	73°9	−0°2	96°3	51°6	77°4	−1°7	100°8	63°6	82°5	+0°8	102°3	64°6	80°2	−0°5	95°3	64°6	75°6	+1°1
Nagpur ...	89°6	44°1	67°0	−2°6	97°1	46°1	74°3	−0°3	104°6	55°1	80°4	−2°7	111°6	68°6	92°2	+1°3	113°6	77°1	97°1	+1°5	112°6	68°6	92°0	+3°6
Bellary...	94°5	57°3	75°6	+1°6	99°0	57°3	80°2	+0°4	103°0	63°3	84°8	−1°4	109°0	69°3	91°9	+1°6	110°0	70°3	90°3	+0°3	105°0	72°3	86°8	+1°7
Bangalore ...	88°3	53°8	70°2	+1°7	89°3	52°8	72°8	+0°1	93°8	52°3	76°8	−1°0	99°8	65°3	82°8	+1°6	97°8	62°8	79°9	−0°4	92°3	64°8	77°1	+1°4
Madras ...	88°0	60°5	76°3	+0°3	92°5	64°0	77°4	−0°1	97°5	62°5	80°6	−0°6	109°5	75°5	87°2	+2°1	109°5	78°0	91°2	+1°4	107°5	77°0	92°4	+2°8
Rangoon ...	92°1	60°4	77°3	+0°6	98°1	60°9	79°7	+0°4	101°1	66°9	84°1	+0°3	102°1	72°9	87°7	+0°3	98°1	73°9	83°4	−1°2	92°6	73°4	80°9	−0°6
Akyab ...	80°4	57°3	69°3	−1°1	88°9	57°3	72°2	−1°0	92°9	60°8	78°3	−0°7	95°9	73°3	84°8	+0°9	93°9	71°8	84°4	−0°1	90°9	74°3	81°9	−0°2

average of each month of thirty-three stations in India during 1908.

JULY.				AUGUST.				SEPTEMBER.				OCTOBER.				NOVEMBER.				DECEMBER.				Stations.
Highest.	Lowest.	Mean.	Departure.	Highest.	Lowest.	Mean.	Departure.	Highest.	Lowest.	Mean.	Departure.	Highest.	Lowest.	Mean.	Departure.	Highest.	Lowest.	Mean.	Departure.	Highest.	Lowest.	Mean.	Departure.	
92.1	76.2	83.5	+0.3	90.6	76.7	83.6	+0.9	93.6	74.7	83.9	+1.2	92.1	63.7	81.5	+1.0	88.1	57.1	72.8	-0.2	83.1	49.7	65.8	-0.5	Calcutta (Alipore).
91.5	74.8	83.3	-0.5	93.5	76.3	84.1	+0.9	92.5	74.8	84.0	+0.3	93.5	66.8	81.8	+0.2	87.5	59.8	74.1	-0.7	82.5	52.3	66.7	-1.1	Narayanganj.
89.6	73.4	80.7	-0.5	90.6	73.9	81.4	+0.6	92.6	73.9	81.4	-9.2	90.1	62.4	79.3	-0.7	87.1	58.9	73.4	-1.0	82.1	49.4	65.7	-2.4	Chittagong.
92.6	73.2	82.4	-1.5	93.6	75.2	82.6	-0.8	91.6	68.2	81.4	-0.7	87.6	60.7	76.9	-0.9	79.6	50.2	66.8	-2.2	73.6	42.2	58.9	-2.2	Sibsagar.
91.8	74.8	83.0	-0.8	95.8	74.8	83.5	+0.3	95.8	73.8	82.3	-0.8	90.8	62.3	79.3	-1.2	88.3	55.3	73.1	-1.1	82.3	46.3	65.2	-2.2	Silchar.
92.9	76.2	83.4	-0.8	90.4	74.2	82.0	-1.7	93.4	75.7	83.9	-0.3	92.4	67.7	82.0	-0.2	88.4	59.2	73.8	-1.9	85.4	50.7	67.2	-3.3	Cuttack.
91.2	72.3	79.3	+0.1	86.7	72.3	78.3	-0.2	88.2	70.8	79.0	+0.6	86.7	59.8	75.1	+0.1	82.7	53.3	66.8	-0.9	77.7	43.3	60.7	-0.7	Hazaribagh.
102.0	77.2	86.7	+1.7	97.5	74.7	86.4	+2.1	95.0	74.2	84.9	+0.4	93.5	61.7	80.1	-0.3	87.5	53.2	70.8	-0.3	78.0	43.7	61.7	-1.3	Patna.
71.3	55.2	62.9	+1.1	72.8	52.2	62.3	+1.0	70.3	54.7	61.3	+1.5	70.3	42.7	56.3	+1.2	58.3	39.2	49.2	+0.4	58.3	34.2	44.9	+2.3	Darjeeling.
105.1	75.0	86.2	+0.7	95.1	75.0	84.4	+0.2	97.6	71.0	85.4	+1.2	96.1	56.0	79.6	+0.5	91.6	49.5	69.6	+0.5	80.6	39.5	61.1	-0.7	Allahabad.
105.5	74.6	86.1	+0.4	95.5	76.1	84.1	-0.4	97.0	70.1	84.6	+0.3	96.0	53.6	78.2	-0.2	89.5	48.1	68.1	0	80.0	39.1	60.3	-0.7	Lucknow.
99.6	72.8	84.9	-1.3	94.1	73.8	83.1	-1.5	95.6	65.8	82.3	-0.9	93.6	51.8	75.9	-0.5	89.1	46.8	66.5	+0.7	79.6	38.8	58.8	0	Meerut.
108.2	75.2	86.6	-0.9	92.7	72.2	83.4	-2.2	98.7	73.2	85.2	+0.2	97.2	59.7	80.6	+0.6	88.7	50.7	70.0	+0.2	78.2	42.7	61.2	-0.2	Delhi.
99.5	75.0	85.3	-1.7	94.0	76.0	83.9	-1.1	98.0	72.5	85.0	+0.1	97.0	59.5	80.1	-0.4	90.0	49.0	70.2	0	78.0	42.5	60.7	-1.8	Agra.
103.0	74.0	83.5	-1.6	90.0	74.0	81.0	-2.0	96.5	74.0	84.4	+0.5	96.5	63.0	82.6	+1.6	92.0	57.0	73.4	+1.5	84.0	46.0	65.1	-0.1	Jhansi.
99.9	71.2	82.2	-2.1	87.4	73.2	79.7	-2.1	92.9	67.2	79.3	-2.9	91.9	55.2	77.8	+0.2	87.9	46.2	68.8	+1.3	80.4	39.2	60.8	-0.2	Ajmer.
95.1	70.0	78.4	-1.2	85.6	71.0	77.2	-1.0	92.2	70.5	79.9	+0.9	91.6	63.0	78.3	+1.7	90.6	54.0	70.9	-1.4	81.1	45.5	63.8	-0.5	Saugor.
93.0	71.8	79.7	-0.6	87.0	72.8	78.4	-1.0	91.0	68.3	80.4	+0.3	90.0	51.8	75.3	-0.5	88.0	44.8	67.0	-0.5	80.0	36.3	59.5	-2.0	Jubbulpur.
112.3	78.0	94.2	+0.4	106.3	77.0	90.5	-1.0	100.8	70.0	86.1	-2.9	97.3	56.0	79.7	-0.3	86.8	47.5	67.8	-0.7	75.8	37.5	58.1	-1.1	Multan.
112.4	73.7	88.6	-1.5	97.4	73.2	83.8	-4.2	97.4	66.7	83.0	-2.7	96.4	50.2	76.6	-0.5	88.4	43.2	65.9	+0.8	76.4	36.2	56.7	-0.1	Lahore.
118.2	73.9	91.2	0	104.2	70.9	86.6	-2.0	95.2	63.9	79.8	-3.3	90.2	49.9	71.9	-0.9	82.2	39.9	61.6	+0.5	75.7	32.9	51.5	-1.8	Peshawar.
75.3	57.2	65.3	+0.2	71.3	56.2	63.7	-0.5	76.8	54.7	64.7	+1.8	75.3	44.2	61.5	+2.9	65.3	33.2	52.2	+0.3	65.3	30.2	47.6	+0.5	Chakrata.
88.6	70.6	77.2	-1.3	84.1	69.6	76.2	-0.9	93.1	63.1	77.7	-0.1	93.1	59.1	76.9	+1.1	92.6	48.1	70.3	+1.7	82.6	39.1	63.4	-0.9	Indore.
102.3	73.4	81.7	-3.0	91.3	72.9	80.5	-1.8	105.3	65.4	83.9	+0.5	100.8	59.9	82.6	+0.7	100.3	49.4	74.8	+0.2	88.8	40.4	66.9	-2.3	Deesa.
95.4	75.5	84.3	-1.3	91.0	74.0	81.7	-1.8	91.5	72.5	80.7	-2.2	96.0	65.0	78.8	-2.5	92.0	59.5	74.1	-0.6	88.5	53.5	69.1	+1.1	Kurrachee.
86.0	75.5	80.7	-0.3	85.0	75.5	80.0	-0.5	90.5	75.5	81.5	+1.1	93.0	73.0	82.8	+0.8	89.0	68.5	79.3	-0.9	87.0	64.5	76.0	-1.2	Bombay.
76.8	65.6	70.4	-0.9	77.8	65.6	70.8	-0.4	83.3	62.6	72.6	+0.4	87.8	62.6	75.4	+1.4	87.3	52.6	71.3	-0.3	84.3	50.1	68.5	-1.3	Belgaum.
92.6	72.1	80.4	-1.0	90.1	71.6	79.1	-1.8	93.6	70.1	81.5	0	93.6	58.6	78.9	-0.4	92.1	51.1	71.2	-1.6	85.6	44.6	65.1	-2.8	Nagpur.
95.0	71.8	82.5	-0.3	96.0	71.8	83.0	+0.9	97.0	68.3	80.9	-0.7	98.0	67.3	82.4	+2.0	94.0	57.8	76.7	+0.5	91.0	54.8	72.5	-0.8	Bellary.
85.8	63.8	72.8	-1.1	85.3	62.8	73.4	-0.4	87.3	63.8	74.7	+1.1	89.3	62.3	74.7	+1.4	85.3	55.8	71.0	+0.4	84.3	51.8	68.7	+0.3	Bangalore.
101.0	73.0	88.2	+1.0	99.0	71.5	86.7	+1.1	98.0	74.0	83.7	-1.5	96.5	70.0	82.3	+0.2	87.5	65.0	76.4	-2.3	85.5	61.5	75.6	-0.9	Madras.
88.6	73.4	80.6	0	88.1	73.9	79.9	-0.5	91.6	73.9	81.5	+0.7	92.6	74.4	82.5	+0.8	89.1	65.9	78.9	-1.1	91.1	63.9	78.0	+0.7	Rangoon.
88.9	75.3	80.9	-0.3	86.9	75.8	80.5	-0.4	89.9	75.8	81.9	-0.4	89.9	71.8	81.7	-0.5	87.9	65.3	75.8	-2.5	84.4	57.8	70.3	-2.6	Akyab.

Appendix to Section I.—Meteorology.

II.—Monthly and Annual RAINFALL and its departure from the average at thirty-four stations in India during 1908.

Stations.	JANUARY.		FEBRUARY.		MARCH.		APRIL.		MAY.		JUNE.		JULY.		AUGUST.		SEPTEMBER.		OCTOBER.		NOVEMBER.		DECEMBER.		TOTAL.	
	Actual.	Departure.	Actual.	Departure.	Actual.	Departure.	Actual.	Departure.	Actual.	Departure.	Actual.	Departure.	Actual.	Departure.	Actual.	Departure.	Actual.	Departure.	Actual.	Departure.	Actual.	Departure.	Inches.	Inches.		
																										Inches.
Calcutta (Alipore).	0.86	+0.54	Nil	-1.00	Nil	-1.19	0.21	-1.22	4.64	-1.04	26.12	+14.77	24.64	+12.37	14.43	+2.05	7.89	-1.02	1.94	-2.18	0.04	-0.64	Nil	-0.22	80.77	+21.22
Narayanganj	0.63	+0.25	Nil	-1.28	0.27	-2.48	2.93	-1.58	13.00	+3.56	11.90	-0.74	17.88	+5.57	6.84	-5.17	5.73	-2.84	2.52	-1.96	Nil	-1.07	Nil	-0.16	61.70	-7.90
Chittagong	0.43	+0.13	1.18	+0.20	0.47	-2.27	7.90	+4.05	9.27	-1.04	14.69	-7.07	32.17	+12.23	4.57	-12.20	12.54	+1.46	7.18	+0.81	4.85	+3.37	Nil	-0.85	95.25	-1.27
Sibsagar	1.53	+0.22	1.78	-0.20	0.88	-4.23	8.44	-1.06	11.48	-1.14	9.19	-4.40	23.92	+6.80	7.56	-8.98	12.32	+0.37	4.60	-0.39	Nil	-0.93	Nil	-0.57	81.70	-14.51
Silchar	0.52	-0.20	0.44	-1.87	0.30	-8.31	3.01	-10.60	17.74	+0.50	15.81	-6.18	17.89	-0.54	22.26	+20.0	14.93	+0.98	4.30	-1.73	1.77	+0.52	Nil	-0.46	98.97	-25.89
Cuttack	0.95	+0.79	Nil	-0.46	0.64	-0.59	Nil	-0.98	1.87	-2.37	17.30	+6.48	9.57	-1.89	25.91	+12.71	10.04	+0.07	1.62	-3.62	Nil	-1.67	Nil	-0.27	67.90	+8.20
Hazaribagh	0.27	-0.21	3.06	+2.31	0.59	-0.21	Nil	-0.39	0.71	-1.62	8.79	-0.32	19.68	+5.27	8.96	-3.64	3.40	-5.48	1.89	-1.25	Nil	-0.30	Nil	-0.20	47.35	-6.04
Patna	0.74	+0.18	1.67	+1.07	0.38	-0.01	Nil	-0.27	0.52	-1.41	4.28	-4.26	6.34	-6.32	8.10	-4.48	3.97	-2.96	Nil	-3.26	Nil	-0.22	Nil	-0.10	26.00	-22.04
Darjeeling	0.83	+0.12	1.19	+0.18	2.69	+1.14	1.24	-3.10	10.24	+1.46	17.52	-6.25	21.75	-11.75	19.29	-7.54	15.04	-3.91	0.91	-3.44	Nil	-0.36	Nil	-0.23	90.70	-33.68
Allahabad	0.48	-0.28	0.47	Nil	Nil	-0.26	Nil	-0.13	Nil	-0.29	0.20	-6.22	13.14	+0.99	16.81	+4.78	2.38	-2.78	0.40	-2.17	Nil	-0.25	0.04	-0.20	33.92	-6.81
Lucknow	1.12	+0.16	0.20	-0.24	0.10	-0.23	Nil	-0.04	0.11	-0.90	0.47	-5.24	16.89	+5.36	14.66	+2.23	3.38	-2.01	0.10	-1.06	Nil	-0.11	Nil	-0.38	36.43	-2.46
Meerut	0.83	-0.52	0.84	-0.06	Nil	-0.63	0.09	-0.10	0.55	-0.05	1.89	-1.60	14.27	+4.92	16.17	+6.87	1.73	-3.57	Nil	-0.35	0.34	+0.21	0.20	-0.28	36.91	+4.84
Delhi	1.53	+1.30	0.56	-0.15	Nil	-0.50	0.15	-0.06	0.43	-0.29	0.19	-3.22	13.84	+5.36	22.95	+14.43	0.62	-2.99	Nil	-0.06	Nil	-0.11	Nil	-0.53	40.27	+13.18
Agra	1.26	+0.73	Nil	-0.29	Nil	-0.26	0.09	-0.04	0.47	-0.09	1.26	-1.64	17.15	+6.55	13.79	+5.65	0.69	-3.54	0.42	+0.04	Nil	-0.11	0.02	-0.27	35.15	+6.73
Jhansi	1.32	+0.70	0.09	-0.32	0.24	-0.02	0.05	-0.07	0.31	-0.10	1.54	-4.52	20.91	+8.79	19.00	+7.39	3.30	-2.59	Nil	-0.64	Nil	-0.13	0.05	-0.19	46.81	+8.30
Ajmer	0.87	+0.43	Nil	-0.24	0.12	-0.04	Nil	-0.11	0.33	-0.28	2.50	+0.02	12.97	+5.55	16.70	+9.45	2.70	+0.37	Nil	-0.29	0.03	-0.17	Nil	-0.27	36.22	+14.42
Saugor	0.70	+0.06	Nil	-0.41	0.67	+0.38	0.05	-0.04	Nil	-0.50	1.45	-7.34	17.41	+2.14	23.04	+10.07	2.40	-4.91	Nil	-1.27	0.21	-0.12	Nil	-0.70	45.93	-2.64
Jubbulpore	0.66	-0.06	0.38	-0.18	0.44	+0.01	0.13	-0.03	Nil	-0.55	6.60	-2.90	20.00	-0.15	27.43	+10.95	3.89	-4.01	0.30	-1.56	Nil	-0.48	0.50	+0.17	60.33	+1.22
Multan	0.40	-0.05	0.13	-0.30	Nil	-0.39	0.83	+0.73	0.20	-0.10	0.02	-0.60	2.81	+0.40	2.34	+0.32	3.36	+3.04	Nil	Nil	Nil	-0.07	Nil	-0.19	10.09	+2.79
Lahore	1.73	+0.61	Nil	-1.10	0.02	-0.63	0.82	+0.40	0.06	-0.76	1.61	-0.40	6.86	+0.50	20.39	+15.09	1.46	-0.53	0.66	-0.14	Nil	-0.07	0.30	-0.08	33.39	+13.29
Peshawar	3.60	+2.00	1.72	+0.50	0.62	-1.42	5.37	+3.62	0.47	-0.28	0.22	-0.03	0.29	-1.37	3.14	+0.78	4.73	+4.21	0.12	+0.03	Nil	-0.47	0.73	+0.40	21.01	+7.97
Ranikhet	1.68	-0.84	2.35	+0.08	0.88	-0.92	0.24	-1.02	1.49	-0.89	2.41	-3.89	12.13	-1.34	16.29	+3.50	1.58	-5.15	Nil	-1.27	Nil	-0.28	0.71	-0.18	40.36	-12.20
Chakrata	1.94	-1.79	6.67	+2.47	0.16	-2.14	1.78	+0.34	1.76	-0.67	3.84	-4.93	23.23	+3.16	26.08	+6.90	0.83	-5.27	Nil	-0.78	0.07	-0.48	0.55	-0.61	66.91	-3.80
Indore	0.28	+0.15	Nil	-0.18	0.05	+0.01	0.13	Nil	Nil	-0.59	4.80	-1.55	13.42	+4.42	5.48	-2.08	0.58	-7.10	Nil	-1.43	0.01	-0.34	Nil	-0.20	24.75	-8.89
Deesa	0.29	+0.14	0.02	-0.05	Nil	-0.05	Nil	-0.01	Nil	-0.25	0.08	-2.19	27.65	+17.49	9.67	+3.00	0.10	-3.88	-0.27	-0.27	Nil	-0.17	Nil	-0.06	37.82	+13.70
Kurrachee	0.85	+0.19	Nil	-0.31	Nil	-0.19	Nil	-0.25	Nil	Nil	Nil	-0.71	5.11	+1.45	0.49	-1.28	0.01	-0.50	Nil	Nil	-0.07	-0.13	Nil	-0.13	6.46	-1.80
Bombay	0.09	-0.01	0.07	+0.05	0.06	+0.04	Nil	-0.07	Nil	-0.71	12.39	-7.24	23.65	-2.40	9.87	-4.20	6.79	-4.96	0.62	-1.62	Nil	-0.49	Nil	-0.06	53.54	-21.67
Belgaum	Nil	-0.04	Nil	-0.03	0.10	-0.33	0.10	-1.80	2.16	-0.33	7.66	-0.78	29.38	+13.92	13.20	+5.13	2.24	-2.59	0.95	-5.01	0.34	-1.42	Nil	-0.12	56.73	+6.60
Nagpur	0.32	-0.11	0.26	-0.12	0.73	+0.25	Nil	-0.48	0.07	-0.65	11.99	+3.47	13.81	-0.85	12.90	+1.84	9.27	+0.23	0.01	-2.42	Nil	-0.81	0.67	+0.19	50.03	+0.54
Bellary	0.56	+0.47	0.20	+0.18	0.22	+0.08	0.45	-0.29	1.20	-0.78	0.79	-0.99	0.78	-0.90	0.68	-1.64	9.31	+4.69	0.57	+3.70	Nil	-1.98	Nil	-0.11	14.76	+2.43
Bangalore	4.01	+3.87	Nil	-0.09	0.06	-0.42	0.72	-0.54	7.20	+2.98	1.26	-1.79	4.12	+0.05	1.40	-3.96	4.47	-1.76	2.32	-4.44	0.07	-3.26	0.17	-0.31	25.80	-9.26
Madras	0.02	-0.50	0.48	+0.25	Nil	-0.21	Nil	-0.40	0.07	-0.83	0.39	-1.82	1.73	-2.29	4.70	-0.64	9.51	+4.50	24.53	+13.08	12.07	-2.01	1.35	-4.67	54.85	+4.46
Rangoon	Nil	-0.12	Nil	-0.31	Nil	-0.20	3.01	+1.18	13.71	+2.49	21.65	+4.13	18.61	-2.37	30.80	+10.95	10.47	-5.37	4.20	-2.19	7.03	+4.60	0.04	-0.05	109.52	+12.74
Akyab	Nil	-0.06	Nil	-0.12	Nil	-0.52	0.02	-1.26	5.72	-6.16	36.55	-8.24	45.72	-6.90	55.99	+13.99	16.68	-5.50	12.42	+2.14	27.48	+24.71	Nil	-0.70	200.58	+11.38

Appendix to Section II.—European Troops.

A—ARMIES AND DIVISIONS.	Years.	Average strength.	RATIO PER MILLE OF STRENGTH.											
			Admissions into hospital.	Constantly sick.	Deaths.	Invaliding.	DEATHS FROM							
							Cholera.	Small-pox.	Enteric fever.	Heat-stroke.	Tubercle of the lungs.	Pneumonia.	Dysentery.	Abscess of the liver.
Northern Army ...	1907	36,551	744	46	8·34	22	·05	...	2·60	·68	·27	·41	·33	·90
	1908	36,676	939	49	10·72	16	·76	·03	3·22	·79	·33	·46	·41	·87
Southern Army ...	1907	31,026	786	50	8·32	31	...	·03	3·13	·03	·13	·29	·35	1·19
	1908	30,243	724	44	7·51	16	·23	·03	2·28	·26	·13	·33	·46	·76
1st (Peshawar) Division ...	1907	2,478	1,158	61	4·84	27	...	...	2·02	...	·40	·40	...	·40
	1908	3,018	1,431	61	18·89	15	2·98	...	7·29	2·32	·66	·33	...	1·33
2nd (Rawalpindi) „ ...	1907	7,270	728	43	6·46	20	...	...	2·20	·14	...	·41	·28	·83
	1908	6,909	877	48	13·32	21	·87	...	4·63	·43	·58	·43	·29	·87
3rd (Lahore) „ ...	1907	8,710	648	38	7·58	12	·11	...	2·53	·80	·34	·11	·11	·57
	1908	8,572	881	50	7·70	11	·35	...	1·75	·70	·47	·35	·58	1·05
4th (Quetta) „ ...	1907	4,422	784	41	7·46	29	...	...	2·26	...	...	·23	·23	·45
	1908	4,003	610	33	5·75	18	·25	...	1·50	·25	·25	·50	...	·50
5th (Mhow) „ ...	1907	6,731	861	45	10·40	39	...	...	5·94	...	...	·15	·30	1·19
	1908	6,730	899	43	9·06	19	...	·15	3·12	·74	·15	·30	·74	·59
6th (Poona) „ ...	1907	6,838	723	48	7·46	20	...	·15	2·63	·15	·29	...	·14	1·02
	1908	6,534	642	41	7·04	11	...	...	1·99	...	·15	·61	·15	1·07
7th (Meerut) „ ...	1907	8,466	821	52	9·57	30	...	...	4·02	·83	·35	·35	·35	·83
	1908	8,656	1,114	53	8·90	16	...	...	2·77	·23	·12	·58	·35	·69
8th (Lucknow) „ ...	1907	9,628	667	45	10·28	24	·10	...	1·87	1·04	·31	·73	·62	1·45
	1908	9,521	723	42	10·61	17	1·05	·11	2·63	1·16	·11	·53	·53	·74
9th (Secunderabad) Division ...	1907	8,135	780	62	7·99	35	...	...	3·20	...	·25	·37	·25	1·72
	1908	8,143	706	51	7·49	16	·25	...	2·70	·25	...	·12	·37	·86
Burma Division ...	1907	3,800	761	46	8·16	21	...	...	·79	...	...	·79	·79	1·32
	1908	3,733	745	51	8·30	17	1·07	...	1·88	...	·27	·27	·80	·54
Aden Brigade ...	1907	1,099	850	43	7·28	63	...	...	...	...	...	·91	...	·91
	1908	1,100	629	41	4·55	26	...	...	...	...	...	...	1·82	·91
INDIA ...	1907	69,332	756	46	8·18	26	·03	·01	2·77	·38	·20	·35	·33	1·01
	1908	68,933	840	46	9·78	16	1·10	·03	2·76	·54	·23	·39	·42	·80

Appendix to Section II—European Troops—contd.

B—GROUPS.	Years.	Average strength.	RATIO PER MILLE OF STRENGTH.										
			Admissions.	Constantly sick.	ADMISSIONS FROM								
					Influenza.	Cholera.	Small-pox.	Enteric fever.	Malaria.	Pyrexia of uncertain origin.	Pneumonia.	Dysentery.	Veneral diseases.
Group I.—Burma Coast and Bay Islands.	1897-1906	1,148	1,260	77	17'2	...	'8	6'3	135'4	76'6	1'2	36'8	419'8
	1907	1,294	726	46	2'3	...	...	...	86'5	166'2	'8	19'3	135'2
	1908	1,276	683	48	...	...	...	1'6	93'3	82'3	'8	21'2	112'1
„ II.—Burma Inland	1897-1906	2,195	1,253	78	4'2	1'0	'1	3'7	339'7	41'4	2'4	18'8	332'4
	1907	1,727	778	45	3'5	...	...	5'2	77'6	68'9	'6	13'3	148'2
	1908	1,751	761	48	...	2'3	...	12'0	61'7	90'2	1'7	5'1	120'5
„ IV.—Bengal and Orissa	1897-1906	1,973	1,319	80	16'8	1'0	'4	9'1	380'6	31'6	3'5	54'6	333'9
	1907	1,953	791	55	5'6	...	2'0	4'1	128'5	94'2	7'7	18'4	189'5
	1908	1,756	844	45	1'1	...	'6	3'4	140'7	168'6	3'4	12'0	124'1
„ V.—Gangetic Plain and Chutia Nagpur.	1897-1906	6,558	1,058	73	7'0	1'6	1'0	25'2	196'6	59'0	2'3	22'8	296'4
	1907	6,556	677	43	'9	'2	'3	11'0	85'7	42'4	2'1	16'9	95'6
	1908	6,641	715	40	6'5	1'7	3'6	17'3	136'6	134'6	6'3	16'9	68'5
„ VI.—Upper Sub-Himalaya	1897-1906	12,719	1,146	71	4'4	'7	'4	24'0	319'0	29'1	5'2	17'7	250'1
	1907	13,391	798	45	6'5	'1	'3	13'5	198'1	43'5	3'9	6'4	72'3
	1908	13,428	1,148	57	14'4	'7	1'4	18'3	466'9	72'2	5'6	10'9	54'8
„ VII.—North-Western Frontier, Indus Valley and North-Western Rajputana.	1897-1906	4,754	1,243	67	18'2	'1	1'0	15'5	452'3	39'4	6'0	14'0	211'1
	1907	4,621	1,062	55	89'8	...	1'7	7'4	392'6	25'8	4'3	3'7	64'3
	1908	4,894	1,254	53	20'8	2'0	...	20'0	500'4	210'5	5'5	9'8	49'7
„ VIII.—South Eastern Rajputana, Central India and Gujarat.	1897-1906	5,922	1,305	81	4'9	'7	1'5	33'5	391'1	23'2	3'6	22'0	322'0
	1907	5,730	842	45	9'9	...	...	23'4	245'9	19'7	2'4	16'2	82'9
	1908	5,528	1,007	44	3'4	...	'4	9'9	407'6	73'1	2'5	15'9	65'7
„ IX.—Deccan	1897-1906	9,456	1,699	71	10'2	'9	'9	21'1	209'6	34'4	2'6	24'3	330'8
	1907	10,260	709	48	1'3	...	'5	18'1	89'8	33'5	1'9	19'4	96'9
	1908	10,288	668	40	3'0	'1	'4	18'5	139'0	43'7	3'9	21'6	82'6
„ X.—Western Coast	1897-1906	1,559	896	63	2'1	'1	'9	4'0	147'6	17'0	2'9	12'4	288'5
	1907	1,372	738	53	...	'7	...	2'2	188'8	9'5	'7	8'0	148'7
	1908	1,485	703	51	...	...	...	2'0	264'6	5'4	1'3	18'9	109'8
„ XI.—Southern India	1897-1906	3,302	1,117	68	3'6	'3	'5	16'0	154'9	39'5	2'0	23'7	332'0
	1907	3,537	807	60	'8	...	'3	21'5	42'1	34'2	4'2	19'2	154'7
	1908	3,671	762	55	'3	'3	...	14'2	54'5	42'0	1'6	25'6	117'1
„ XIIa.—Hill Stations	1897-1906	9,248	830	55	6'2	'3	'1	21'9	111'7	26'7	5'1	13'0	207'8
	1907	11,689	625	39	19'3	...	'3	13'0	101'7	28'1	2'7	6'1	54'4
	1908	10,923	575	35	3'0	'5	'2	13'6	113'3	25'5	2'8	8'6	50'3
„ XIIb.—Hill Convalescent Depôts and Sanitaria.	1897-1906	3,358	1,086	75	5'6	'2	'2	15'4	234'8	12'4	4'3	18'5	225'3
	1907	3,515	797	62	4'8	...	...	8'0	177'0	8'8	1'4	10'0	101'8
	1908	3,812	754	65	1'6	...	...	10'8	165'5	19'2	2'6	10'2	66'6
INDIA	1897-1906	66,891	1,107	68	7'1	'7	'6	20'8	266'0	33'0	4'1	22'5	271'5
	1907	69,332	756	46	12'5	'0	'4	13'1	153'8	36'8	2'8	11'7	89'9
	1908	68,933	840	46	6'3	1'3	'8	14'5	244'1	73'9	3'9	14'4	69'6

Appendix to Section II—European Troops—concluded.

C—Admission and death rates from Enteric fever in stations of over 1,000 strength.

Stations.	1908.		DECENNium, 1897-1906.		Stations.	1908.		DECENNium 1897-1906.	
	Admission rate per 1,000.	Death rate per 1,000.	Admission rate per 1,000.	Death rate per 1,000.		Admission rate per 1,000.	Death rate per 1,000.	Admission rate per 1,000.	Death rate per 1,000.
Jubbulpore ...	34·6	3·95	32·1	8·44	Ranikhet ...	14·0	3·05	23·4	3·62
Rawalpindi ...	31·9	6·17	26·3	5·29	Kirkee ...	10·1	1·84	30·6	4·47
Peshawar ...	31·3	7·21	29·4	11·48	Poona ...	9·8	·52	23·9	5·12
Meerut ..	27·4	6·61	35·9	10·21	Ambala ...	8·3	2·61	30·9	7·78
Jhansi ...	26·5	8·85	35·6	10·75	Karachi ...	6·0	·86	5·5	1·63
Secunderabad ...	25·9	5·17	22·0	4·87	Fort William ...	5·1	...	3·4	·36
Cawnpore ...	25·4	7·51	15·5	3·13	Chakrata ...	4·3	...	24·9	2·80
Sialkot ...	20·9	5·43	16·1	5·29	Mhow ...	4·1	...	35·6	8·45
Bangalore ...	19·0	1·77	23·9	4·03	Bareilly ...	3·5	...	14·9	3·11
Quetta ...	17·9	2·13	30·1	7·34	Wellington ...	2·9	·96	11·2	1·56
Belgaum ...	14·6	3·88	8·2	2·44	Aden ...	1·8	...	6·6	2·48
Lucknow ...	14·3	4·48	39·3	8·35	Colaba ...	1·7	·87	3·2	1·62
					Rangoon ...	1·6	·78	6·9	1·78

Period.	D.—OFFICERS.				E.—WOMEN.				F.—CHILDREN.			
	*Average annual strength.	Admission rate per 1,000.	Constantly sick rate per 1,000.	Death rate per 1,000.	*Average annual strength.	Admission rate per 1,000.	Constantly sick rate per 1,000.	Death rate per 1,000.	*Average annual strength.	Admission rate per 1,000.	Constantly sick rate per 1,000.	Death rate per 1,000.
1897-1906 ...	2,060	798·2	29·6†	14·42	3,052	736·8	34·1	14·02	5,211	528·6	25·2	41·68
1907 ...	2,204	633·4	25·6	7·71	3,496	657·6	28·8	6·58	5,379	368·3	15·3	32·72
1908 ...	2,188	668·2	25·5	9·60	3,696	719·7	30·5	13·53	5,819	450·1	16·3	50·18

* The decennial rates are, of course, worked on the total strength of the ten years period.

† For eight years period (1899-1906).

Appendix to Section III—Native Troops.

A.—Armies and Divisions.				Years.	Average strength.	RATIO PER MILLE OF STRENGTH.										Mortality including absent deaths.*		
						Admissions into hos- pital.	Constantly sick.	DEATHS FROM										
								Cholera.	Small-pox.	Enteric fever.	Malaria.	Tubercle of the lungs.	Pneumonia.	Dysentery.	Abscess of the liver.		All causes.	
Northern Army	...	...	{	1907	61,163	712	24	'08	'03	'39	'93	'38	2'62	'20	'05	7'28	
				1908	62,141	797	26	1'24	'02	'76	'84	'50	2'96	'13	'03	8'69		
Southern Army	...	...	{	1907	50,484	584	21	'38	'06	'40	'46	'30	1'64	'18	'10	5'68	
				1908	50,822	599	21	'55	'04	'51	'39	'31	1'71	'39	...	6'30		
1st (Feshawar) Division	...	...	{	1907	9,198	835	27	...	...	'22	'98	'11	5'00	'22	...	10'00	
				1908	9,205	944	33	1'96	...	'33	1'63	'22	3'37	'22	...	10'65		
2nd (Rawalpindi) Division	...	...	{	1907	10,949	682	27	'09	'09	'64	'64	'55	2'56	'37	'09	7'49	
				1908	10,568	694	26	3'50	...	1'51	'38	'47	3'22	'28	...	11'26		
3rd (Lahore) Division	...	...	{	1907	11,684	428	17	'09	...	'26	'86	'43	1'45	'17	...	6'25	
				1908	11,801	582	18	'34	...	'42	1'02	'59	3'14	...	...	7'46	
4th (Quetta)	„	...	{	1907	7,964	599	24	...	'25	'25	'88	'25	3'64	'63	...	8'66		
				1908	9,192	608	21	'44	...	'87	'22	'33	3'81	'33	...	8'38		
5th (Mhow)	„	...	{	1907	16,234	665	22	'68	'06	'43	'49	'25	1'23	...	...	5'24	
				1908	15,200	693	21	'07	'13	'66	'39	'33	'99	'20	...	4'47		
6th (Poona)	„	...	{	1907	9,375	583	20	'21	...	'32	'21	'11	1'07	...	'11	4'59		
				1908	9,994	542	22	...	...	'60	'50	'20	1'00	'50	...	5'30	
7th (Meerut)	„	...	{	1907	10,527	630	22	...	...	'47	'95	'57	1'33	'09	'09	5'98	
				1908	11,702	720	26	'26	'09	1'28	'77	'85	1'62	...	'09	7'61		
8th (Lucknow)	„	...	{	1907	10,433	708	21	...	...	'19	1'25	'29	1'05	'19	'10	5'08	
				1908	10,393	666	23	'96	...	'10	'77	'67	2'89	'10	...	7'51		
9th (Secunderabad) Division	...	...	{	1907	10,306	370	16	'58	...	'78	'19	'19	1'75	'19	'19	5'82	
				1908	10,445	476	19	2'20	...	'19	'19	'29	1'24	'48	...	8'33		
Burma Division	...	...	{	1907	5,096	650	26	...	...	...	'79	'39	'59	...	'39	3'73	
				1908	4,950	663	26	...	...	...	'81	'40	1'41	'20	...	4'24	
Kohat, Derajat and Bannu Brigades			{	1907	8,372	1,240	34	'36	'12	'60	'96	'24	5'26	'12	...	9'91		
				1908	8,472	1,330	33	'59	...	'83	'47	...	3'90	'24	'12	8'03		
Aden Brigade	—	...	{	1907	1,509	861	29	...	...	...	...	2'65	1'90	1'33	...	7'29	
				1908	1,041	621	25	...	...	...	'96	'96	6'72	2'88	...	13'45	
Army of India	...	...	{	1907	1,26,392	629	22	'19	'04	'35	'66	'33	1'99	'20	'06	6'27	8'51
				1908	1,26,975	674	23	'91	'02	'57	'58	'42	2'20	'22	'02	7'41	8'49	

* Worked on the average annual strength of the troops present with and absent from their regiments during the year.

B—GROUPS.	Years.	Average strength.*	RATIO PER MILLE OF STRENGTH.										
			Admissions.	Constantly sick.	ADMISSIONS FROM								
					Influenza.	Cholera.	Small-pox.	Enteric fever.	Malaria.	Pyrexia of uncertain origin.	Pneumonia.	Dysentery.	Veneral diseases.
Group I—Burma Coast and Bay Islands.	1897-1906	1,435	721	27	5'4	'1	'2	'1	191'4	17'8	2'6	64'9	47'5
	1907	1,297	563	22	...	...	...	...	165'8	57'8	'8	23'1	5'4
	1908	1,286	632	19	...	...	...	...	130'6	112'8	2'3	83'2	13'2
" II.—Burma Inland ...	1897-1906	3,955	865	32	1'9	'2	'1	'1	427'4	9'2	2'6	31'3	31'8
	1907	2,807	629	26	...	...	...	'4	163'2	57'0	4'6	21'0	16'4
	1908	2,823	661	27	...	...	...	2'1	230'3	3'5	6'4	22'7	13'5
" III.—Assam ...	1897-1906	1,327	859	37	3'5	1'3	...	2'0	349'3	3'2	8'0	79'9	48'1
	1907	964	1,059	30	...	...	1'0	2'1	429'5	2'1	2'1	24'9	45'6
	1908	923	882	23	...	2'2	...	...	446'4	9'8	8'7	33'6	23'8
" IV.—Bengal and Orissa ...	1897-1906	2,528	972	35	8'9	'4	'5	'4	504'3	5'7	5'6	64'8	36'6
	1907	2,022	507	33	1'5	...	'5	...	431'3	4'9	7'4	54'9	22'7
	1908	2,219	731	28	'5	...	...	'9	240'2	25'7	9'9	81'1	16'7
" V.—Gangetic Plain and Chutia Nagpur.	1897-1906	6,251	575	24	4'3	1'0	'6	'4	175'7	6'0	7'8	38'4	26'4
	1907	5,990	444	16	'2	...	'3	...	100'7	14'2	8'3	32'6	10'9
	1908	5,972	604	20	'2	2'7	1'3	'2	252'2	7'5	13'9	55'4	15'2
" VI.—Upper Sub-Himalaya	1897-1906	15,882	618	24	1'8	'7	'6	'8	238'9	3'5	15'0	27'9	24'7
	1907	20,904	582	20	4'9	'2	'5	2'6	223'5	19'9	11'6	18'8	14'4
	1908	21,426	704	23	1'7	'8	1'1	5'2	334'3	22'4	14'1	39'5	13'9
" VII.—North-West Frontier, Indus Valley, and North-Western Rajputana.	1897-1906	16,892	894	30	4'7	1'5	'7	'4	394'1	4'9	22'4	53'0	17'7
	1907	18,024	951	28	12'9	'2	'1	1'4	441'0	2'2	23'0	44'9	7'5
	1908	17,733	1,116	32	3'3	1'5	'2	4'2	544'3	7'8	21'3	53'3	8'7
" VIII.—South-Eastern Rajputana, Central India and Gujarat.	1897-1906	12,058	778	28	1'8	1'0	'7	'4	338'9	8'7	14'7	29'6	41'3
	1907	13,094	656	21	3'7	'1	'3	'9	255'7	7'9	10'9	26'0	14'4
	1908	12,114	687	21	1'0	...	'5	1'2	288'8	2'6	12'3	23'9	17'0
" IX.—Deccan	1897-1906	17,042	613	23	4'0	1'4	'6	'4	207'9	12'2	8'0	30'2	42'9
	1907	16,794	492	19	3'6	1'2	'7	2'4	79'2	37'5	6'5	32'7	23'2
	1908	17,631	485	19	9'2	1'9	3'0	2'4	106'9	23'1	6'6	30'7	23'7
" X.—Western Coast	1897-1906	2,279	735	31	2'4	'3	1'4	'1	203'1	11'2	10'2	60'1	51'2
	1907	1,652	530	31	...	...	...	2'4	250'0	2'4	10'9	73'2	24'8
	1908	1,707	920	34	1'8	...	1'2	2'3	300'5	12'9	5'9	70'3	53'3
" XI.—Southern India	1897-1906	6,790	616	29	3'0	1'6	'6	'3	162'3	21'8	8'8	23'3	42'6
	1907	3,880	415	16	'5	1'5	1'5	1'0	58'7	29'1	7'0	18'3	28'6
	1908	4,623	561	21	'2	2'4	'2	'4	155'5	17'7	7'8	35'0	26'0
" XII.—Hill Stations	1897-1906	20,412	845	34	9'7	'5	'3	1'0	337'5	12'3	19'0	45'8	34'6
	1907	22,710	634	25	14'3	...	'4	1'7	223'7	14'9	16'8	37'2	13'0
	1908	23,465	625	23	4'8	1'8	'2	3'7	236'3	18'9	15'5	33'2	13'7
Army of India.	1897-1906	1,25,487	725	27	5'1	1'0	'5	'5	289'5	8'8	13'6	42'7	30'5
	1907	1,26,392	629	22	6'5	'3	'4	1'4	225'0	16'6	12'4	33'5	14'7
	1908	1,26,975	674	23	3'8	1'4	'8	2'8	266'2	16'2	12'8	39'5	15'2

*The decennial ratios are worked on the total strength of the ten years period.

1—ACTUALS. 2.—RATIOS.

C. Plains and Hills.	Average annual strength.	Malaria.		Tubercle of the lungs.		Pneumonia.		Other respiratory diseases.		Dysentery and Diarrhoea.		Scurvy.		Anæmia and Debility.		All causes.		Average number constantly sick.	
		A	D	A	D	A	D	A	D	A	D	A	D	A	D	A	D		
1904.	{ Plains ... }	98,289	{ 17,787	85	340	25	1,048	190	1,924	23	3,476	20	324	1	1,283	12	56,276	692	2,151
			{ 181'0	'87	3'5	'25	10'7	1'93	19'6	'23	35'4	'20	3'3	'01	13'1	'12	572'6	7'04	21'9
	{ Hills ... }	20,366	{ 4,816	30	125	30	318	50	426	4	702	8	83	1	252	...	13,377	180	576
			{ 236'5	1'47	6'1	1'47	15'6	2'46	20'9	'20	34'5	'39	4'1	'05	12'4	...	656'8	8'84	28'3
	{ Hills above 5,000 feet sea-level. }	8,576	{ 1,523	14	49	12	103	13	165	3	269	1	35	1	81	...	5,055	72	227
			{ 167'6	1'64	5'7	1'40	12'0	1'52	19'2	'35	31'4	'12	4'1	'12	9'4	...	589'4	8'40	26'5
{ Hills below 5,000 feet sea-level. }	11,790	{ 3,293	16	76	18	215	37	261	1	433	7	48	...	171	...	8,322	108	349	
		{ 277'0	1'45	6'4	1'53	18'2	3'14	22'1	'08	36'7	'59	4'1	...	14'5	...	705'9	9'16	29'6	
1905.	{ Plains ... }	99,771	{ 15,130	69	287	33	1,266	185	2,528	23	3,771	18	124	3	1,080	9	55,250	602	2,083
			{ 151'6	'69	2'9	'33	12'7	1'86	25'3	'21	37'8	'18	1'2	'03	10'8	'09	553'8	6'03	20'9
	{ Hills ... }	20,224	{ 3,677	26	93	26	277	50	920	5	850	9	84	1	253	...	14,749	365	624
			{ 181'8	1'29	4'6	1'29	13'7	2'37	45'5	'35	42'0	'45	4'2	'05	12'5	...	729'3	18'05	30'9
	{ Hills above 5,000 feet sea-level. }	9,583	{ 1,357	11	46	13	95	20	333	2	341	6	50	1	100	...	5,698	260	260
			{ 141'6	1'15	4'8	1'36	9'9	2'09	34'7	'21	35'6	'63	5'2	'10	10'4	...	594'6	27'13	27'1
{ Hills below 5,000 feet sea-level. }	10,641	{ 2,320	15	47	13	182	30	587	3	509	3	34	...	153	...	9,051	105	364	
		{ 218'1	1'41	4'4	1'22	17'1	2'63	55'2	'47	47'8	'28	3'2	...	14'4	...	850'6	9'87	34'2	
1906.	{ Plains ... }	1,01,783	{ 26,833	64	221	32	856	159	2,108	14	4,656	27	214	10	1,349	3	68,275	665	2,201
			{ 263'7	'62	2'2	'31	8'4	1'56	20'7	'14	45'7	'27	2'1	'10	13'2	'03	670'8	6'53	21'6
	{ Hills ... }	22,469	{ 6,250	16	79	29	285	39	754	2	926	8	92	...	347	2	17,057	158	646
			{ 278'2	'71	3'5	1'29	12'7	1'74	33'6	'09	41'2	'36	4'1	...	15'4	'09	759'1	7'03	28'8
	{ Hills above 5,000 feet sea-level. }	11,510	{ 2,546	8	34	9	118	17	289	2	437	7	70	...	163	2	6,923	78	293
			{ 221'2	'69	3'0	'78	10'3	1'48	25'1	'17	38'0	'61	6'1	...	14'2	'17	601'5	6'78	25'5
{ Hills below 5,000 feet sea-level. }	10,959	{ 3,704	8	45	20	167	22	465	...	489	1	22	...	184	...	10,134	80	353	
		{ 338'0	'72	4'1	1'82	15'2	2'01	42'4	...	44'6	'09	2'0	...	16'8	...	924'7	7'30	32'2	
1907.	{ Plains ... }	99,460	{ 22,265	50	218	25	1,171	185	2,464	19	3,802	17	223	14	1,168	6	61,973	582	2,047
			{ 224'1	'50	2'2	'25	11'8	1'86	24'8	'19	38'2	'17	2'2	'14	11'8	'06	623'2	5'85	20'6
	{ Hills ... }	22,399	{ 5,155	32	52	13	379	66	660	6	982	8	54	2	338	3	14,412	187	568
			{ 230'2	1'43	2'3	'58	16'9	2'95	29'5	'27	43'8	'36	2'4	'09	15'1	'13	643'4	8'35	25'4
	{ Hills above 5,000 feet sea-level. }	11,378	{ 1,292	8	22	7	152	16	231	3	501	4	42	2	129	...	5,499	59	230
			{ 113'5	'71	1'9	'62	13'4	1'41	20'3	'26	44'6	'35	3'7	'18	11'3	...	483'3	5'19	20'2
{ Hills below 5,000 feet sea-level. }	11,021	{ 3,863	24	30	6	227	50	429	3	481	4	12	...	209	3	18,913	128	338	
		{ 350'5	2'18	2'7	'54	20'6	4'54	38'9	'27	43'6	'36	1'1	...	19'0	'27	808'7	11'61	30'7	
1908.	{ Plains ... }	98,138	{ 27,893	51	272	32	1,210	214	1,720	26	4,724	28	140	...	1,144	12	67,837	653	2,201
			{ 284'2	'52	2'8	'33	12'3	2'18	17'5	'26	48'1	'29	1'4	...	11'7	'12	691'2	6'65	22'4
	{ Hills ... }	23,465	{ 5,545	22	92	20	364	60	582	11	1,054	8	48	...	352	3	14,660	232	550
			{ 236'3	'94	3'9	'85	15'5	2'56	24'8	'47	44'9	'34	2'0	...	15'0	'13	624'8	9'89	23'4
	{ Hills above 5,000 feet sea-level. }	12,079	{ 1,757	7	60	13	167	29	263	6	581	5	19	...	145	1	5,914	101	218
			{ 145'5	'58	5'0	1'08	13'8	2'40	21'8	'50	48'1	'41	1'6	...	12'0	'08	489'6	8'36	18'0
{ Hills below 5,000 feet sea-level. }	11,386	{ 3,788	15	32	7	197	31	319	5	473	3	29	...	207	2	8,746	131	332	
		{ 332'7	1'32	2'8	'61	17'3	2'72	28'0	'44	41'5	'26	2'5	...	18'2	'18	768'1	11'51	29'2	

D—ENTERIC FEVER.						1897-1906.		1908.	
						Admission rate per 1,000.	Death rate per 1,000.	Admission rate per 1,000.	Death rate per 1,000.
European troops	...	...	...	...	...	20·8	5·09	14·5	2·
*Native troops	..	...	...	...	...	'5	'15	2·8	'57
Gurkhas only	...	...	...	...	...	2·2	'64	8·0	1·69
Prisoners	...	...	...	...	...	'4	'14	1·0	'31

*Including Gurkhas also.

						E—TUBERCLE OF THE LUNGS. 1908.		F—VENEREAL DISEASES. 1908.
						Admission rate per 1,000.	Death rate per 1,000.	Admission rate per 1,000.
Army of India excluding Gurkhas	...	...	...	...	...	2·7	'28	14·8
Gurkhas only	...	...	...	...	...	5·0	1·43	18·2

						G—INFLUENZA.				H—PNEUMONIA.			
						1897-1906.		1908.		1897-1906.		1908.	
						Admission rate per 1,000.	Death rate per 1,000.	Admission rate per 1,000.	Death rate per 1,000.	Admission rate per 1,000.	Death rate per 1,000.	Admission rate per 1,000.	Death rate per 1,000.
European troops	...	...	...	...	...	7·1	'01	6·3	...	4·1	'58	3·9	'39
Native troops	...	...	...	...	...	5·1	'03	3·8	'02	13·6	2·90	12·8	2·20
Prisoners	...	...	...	...	...	13·0	'18	3·7	'03	13·3	3·49	12·1	3·34

A.—Administrations.	Years.	Average strength.†	RATIO PER MILLE OF STRENGTH*.											
			Admissions.	Constantly sick.	DEATHS FROM									
					Cholera.	Small-pox.	Malaria.	Tubercle of the lungs.	Pneumonia.	Respiratory diseases.	Dysentery.	Diarrhoea.	Anæmia and debility.	All causes.
Burma	1901-1905	11,779	452	22	·68	·02	·61	3·63	1·32	·51	2·77	·82	·32	16·78
	1907	13,721	256	14	·22	...	·37	3·06	·86	·44	·73	·29	·22	11·88
	1908	13,871	277	16	·79	...	·50	3·39	1·23	·43	1·37	·14	...	13·27
Eastern Bengal and Assam ...	1901-1905	6,285	1,099	45	·67	·10	2·23	3·34	3·47	·76	7·67	1·05	1·46	28·00
	1907	7,310	861	38	·96	·14	2·60	3·97	2·87	·96	7·25	1·23	·68	29·55
	1908	7,118	917	37	1·97	·14	1·26	4·50	3·23	1·97	8·43	1·26	1·26	31·89
Bengal	1901-1905	14,573	999	37	·77	·04	2·03	3·86	2·48	·54	5·83	1·39	·56	23·93
	1907	14,408	938	36	·35	·28	1·04	3·12	2·64	·62	2·85	·35	·42	16·94
	1908	15,555	930	38	3·98	·06	·84	5·01	2·31	·45	8·54	1·80	·96	31·61
United Provinces of Agra and Oudh ...	1901-1905	25,557	699	34	·46	·04	·96	2·97	2·54	·94	3·73	1·06	·22	18·77
	1907	23,887	603	29	·04	·04	·88	1·67	3·43	·96	1·93	1·05	·17	15·03
	1908	28,308	679	31	·21	·32	1·55	2·79	4·91	1·38	3·89	1·27	·46	24·09
Punjab	1901-1905	12,333	999	32	·11	·10	·97	3·68	4·74	·66	2·61	·75	·68	21·68
	1907	11,154	707	30	...	...	·72	3·86	4·03	·54	2·06	1·34	·90	19·81
	1908	11,919	581	26	·08	·17	·42	5·87	4·53	·84	3·78	1·09	·42	23·49
North-West Frontier Province ...	1901-1905	1,287	1,016	32	...	·78	·62	·93	4·35	·47	3·73	·47	·31	20·35
	1907	1,183	1,209	35	...	...	...	3·38	5·92	...	3·38	·85	...	17·75
	1908	1,345	1,222	37	...	...	1·49	·74	4·46	2·23	·74	...	...	15·61
Central Provinces	1901-1905	4,429	772	25	·09	...	·54	2·53	2·48	1·31	3·61	1·85	1·17	20·19
	1907	3,241	526	18	...	...	1·24	2·47	·93	·62	4·32	·62	·93	19·44
	1908	4,013	632	21	...	·50	1·00	3·99	1·00	1·50	5·23	·50	...	22·18
Bombay	1901-1905	8,725	689	29	·05	·16	1·40	3·32	6·56	1·60	1·74	1·63	·83	26·36
	1907	7,537	693	32	...	...	·53	2·52	5·84	1·46	1·86	1·59	·93	20·96
	1908	7,930	654	33	·13	...	1·26	3·03	3·28	1·13	·88	·63	·25	18·16
Madras	1901-1905	9,832	482	21	1·36	·02	1·04	3·50	1·95	·33	2·36	·14	·37	18·74
	1907	10,166	376	19	3·84	...	1·18	2·46	1·87	·20	2·85	·10	·30	18·79
	1908	10,638	443	23	7·05	...	1·03	3·20	1·88	·75	7·05	...	·94	29·80
INDIA†	1901-1905	95,479	759	31	·54	·06	1·17	3·32	3·07	·79	3·71	1·04	·56	21·12
	1907	93,264	624	27	·59	·06	·94	2·74	2·90	·73	2·57	·80	·45	17·72
	1908	101,336	646	29	1·68	·15	1·04	3·76	3·24	1·03	4·67	·94	·55	24·17
ANDAMANS	1901-1905	13,289	1,838	61	...	...	3·76	7·66	4·23	1·28	10·84	1·57	·02	37·38
	1907	14,411	1,903	78	·07	...	2·23	5·20	4·30	·90	3·12	·69	...	23·59
	1908	14,067	1,439	79	...	...	2·20	7·11	4·12	1·07	4·34	·71	...	26·66
INDIA§	1901-1905	108,769	891	35	·47	·06	1·51	3·85	3·21	·85	4·58	1·11	·49	23·11
	1907	107,675	795	34	·52	·06	1·11	3·07	3·08	·75	2·65	·79	·39	18·51
	1908	115,403	743	35	1·47	·13	1·18	4·17	3·34	1·03	4·63	·91	·49	24·47

* Excluding Subsidiary Jails.

† Including Ajmer, Sibi, Quetta, Mercara and Secunderabad and excluding Andamans.

§ Including Andamans.

B.—Groups.			Years.	Average strength.†	RATIO PER MILLE OF STRENGTH*.										
					Admissions.	Constantly sick.	ADMISSIONS FROM								
							Influenza.	Cholera.	Small-pox.	Enteric fever.	Malaria.	Pyrexia of un- certain ori- gin.	Pneumonia.	Dysentery.	Diarrhoea.
Group I.—Burma Coast and Bay Islands	...	...	1901-1905	7,967	442	21	·7	1·2	·1	·6	100·2	19·2	3·8	37·0	25·2
			1907	9,728	248	14	·8	·5	·1	...	35·9	17·1	1·3	10·6	6·6
			1908	9,542	271	15	·6	·3	...	·8	33·4	16·8	2·0	14·0	11·8
„ II.—Burma Inland	...	...	1901-1905	3,812	471	23	4·2	1·8	·1	·6	110·2	3·0	8·0	67·7	39·1
			1907	3,993	274	14	...	...	·3	·3	39·6	6·3	4·8	43·1	8·5
			1908	4,329	291	16	...	3·2	...	3·0	40·4	15·7	7·2	31·2	11·1
„ III.—Assam	...	...	1901-1905	1,239	820	42	19·2	1·5	1·1	·2	263·9	4·4	4·8	234·2	56·7
			1907	1,545	866	28	89·3	...	...	·6	328·8	...	5·2	173·5	53·7
			1908	1,532	1,138	27	...	2·6	·7	...	627·3	...	7·8	91·4	92·7
„ IV.—Bengal and Orissa	...	...	1901-1905	12,182	1,014	40	21·2	1·1	·4	·5	272·4	10·8	16·3	258·9	78·3
			1907	12,670	946	41	10·0	1·4	·9	·2	305·4	1·7	11·0	191·2	85·9
			1908	12,984	957	42	18·0	5·5	·5	3·1	251·5	5·6	9·9	196·0	89·3
„ V.—Gangetic Plain and Chutia Nagpur	}		1901-1905	23,686	769	33	16·0	·9	·4	·4	266·5	4·5	10·0	86·0	50·1
			1907	22,646	620	26	2·0	·4	1·9	·2	204·0	6·0	0·8	64·9	30·6
			1908	26,317	661	29	2·5	3·0	2·6	·2	204·8	11·3	11·7	86·8	40·2
„ VI.—Upper Sub-Himalaya	...	...	1901-1905	13,091	946	32	17·8	·1	·3	·8	410·5	3·9	17·5	56·3	54·5
			1907	11,880	752	31	7·7	·1	·6	1·0	295·9	2·1	21·4	34·3	27·1
			1908	13,349	771	30	7·3	·1	2·1	·9	351·6	7·6	25·7	62·0	25·8
„ VII.—North-West Frontier, Indus Valley and North-Western Rajputana.	}		1901-1905	8,142	785	29	9·5	·3	1·7	·2	292·4	1·1	27·4	48·5	49·1
			1907	7,958	738	31	1·0	...	...	·9	232·3	1·5	31·7	52·5	46·9
			1908	8,293	650	28	1·0	·5	1·0	·5	203·9	4·2	22·7	47·8	31·4
„ VIII.—South-Western Rajputana, Central India and Gujarat.	}		1901-1905	4,772	754	39	12·3	·5	·8	·1	279·0	·3	20·5	36·5	31·2
			1907	4,206	664	34	...	...	...	...	162·8	...	18·3	19·0	35·0
			1908	4,666	580	37	...	·2	·2	1·1	193·3	...	19·1	25·7	29·4
„ IX.—Deccan	...	...	1901-1905	8,373	812	31	14·0	·1	·3	·2	290·4	4·5	9·9	50·3	44·5
			1907	6,563	727	29	5·2	·2	·2	·6	215·7	·6	3·7	46·8	38·7
			1908	7,557	744	32	2·5	·8	·7	·5	210·3	9·0	4·2	50·8	49·4
„ X.—Western Coast	...	...	1901-1905	2,728	527	23	1·4	·1	1·0	3·7	159·9	8·3	9·5	40·3	35·1
			1907	2,290	479	23	·4	...	...	11·4	96·9	5·2	7·0	75·1	40·2
			1908	2,400	530	25	...	...	1·2	3·8	109·2	8·3	6·7	80·0	50·4
„ XI.—Southern India	...	...	1901-1905	8,815	497	22	4·4	3·6	·2	·7	107·7	26·8	9·0	55·1	5·8
			1907	9,106	376	19	...	11·6	·1	·5	55·9	8·2	4·6	51·3	3·5
			1908	9,636	433	23	·1	13·0	·1	1·2	69·1	13·4	8·5	58·7	5·9
„ XII.—Hills	...	...	1901-1905	504	842	28	5·1	1·3	1·0	2·4	270·0	19·9	20·2	85·5	50·5
			1907	608	671	25	...	...	...	1·6	210·6	3·3	11·5	65·8	41·1
			1908	666	858	27	...	40·5	...	...	184·7	...	16·5	91·6	61·6
INDIA†	...	...	1901-1905	95,479	750	31	12·7	1·0	·5	·6	254·0	8·1	12·4	83·3	45·8
			1907	93,264	628	27	4·9	1·5	·7	·7	191·3	5·1	11·5	67·9	34·4
			1908	101,336	646	29	4·2	3·3	1·2	1·1	197·7	9·4	12·4	76·9	37·6
ANDAMANS	...	...	1901-1905	13,289	1,838	61	7·0	...	...	...	1,121·4	...	11·6	156·9	63·9
			1907	14,411	1,903	78	1·1	·1	...	...	1,319·6	22·6	13·9	109·8	31·2
			1908	14,067	1,439	79	...	...	...	·2	856·5	9·5	10·2	110·8	35·5
INDIA§	...	...	1901-1905	108,769	891	35	12·0	·9	·4	·5	360·0	7·1	12·3	26·7	48·0
			1907	107,675	795	34	4·4	1·3	·6	·6	342·3	7·5	11·8	73·5	34·0
			1908	115,403	743	35	3·7	2·9	1·1	1·0	278·0	9·4	12·1	81·1	37·3

* Excluding Subsidiary Jails.

† Including Aden and excluding Andamans.

§ Including Andamans.

‡ The quinquennial ratios are, of course, worked on the total strength of the five years.

C.—Causes of admission.					Years.*	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Influenza	...	...	...	{	1904	14	9	5	32	51	41	38	32	28	47	40	33	370
					1905	77	114	90	223	52	30	48	130	192	59	21	21	1,057
					1906	29	36	25	51	64	96	50	22	50	102	30	10	565
					1907	7	49	122	4	1	3	62	12	8	32	33	121	454
					1908	44	21	27	23	43	12	5	63	74	76	29	13	430
Total					1904-1908	171	229	269	333	211	182	203	259	352	316	153	198	2,876
Cholera	...	...	...	{	1904	2	3	5	3	7	20	1	...	1	2	...	3	47
					1905	4	...	1	2	2	...	2	12	39	5	3	3	73
					1906	2	3	1	9	3	5	42	37	5	30	47	3	187
					1907	2	2	3	8	92	2	6	16	3	1	3	2	140
					1908	6	1	10	16	33	65	114	81	3	4	3	1	337
Total					1904-1908	16	9	20	38	137	92	165	146	51	42	56	12	784
Enteric fever	...	...	...	{	1904	13	3	2	8	3	2	3	5	6	3	5	2	55
					1905	...	...	4	4	6	6	14	11	3	6	3	7	64
					1906	11	1	4	2	5	7	14	33	14	4	2	4	102
					1907	6	9	2	3	9	3	3	6	7	6	5	6	65
					1908	5	8	3	9	5	13	11	13	24	14	3	5	113
Total					1904-1908	35	21	15	27	28	31	45	68	54	33	18	24	399
Malaria	...	...	...	{	1904	1,257	1,099	1,160	1,342	1,403	1,301	1,425	2,012	2,558	2,575	2,031	1,464	19,627
					1905	1,087	977	1,128	1,302	1,369	1,280	1,327	1,555	1,858	1,887	1,735	1,308	16,813
					1906	874	676	909	1,169	1,187	1,253	1,696	1,915	2,511	2,915	2,872	1,928	19,905
					1907	1,481	963	1,063	1,181	1,372	1,273	1,447	1,609	2,041	2,145	1,865	1,401	17,841
					1908	926	662	824	957	1,132	1,217	1,207	1,803	3,084	3,634	2,768	1,755	20,039
Total					1904-1908	5,625	4,377	5,084	5,961	6,463	6,324	7,162	8,894	12,052	13,156	11,271	7,856	94,225
Dysentery of uncertain origin	...	{	1904	51	48	31	36	57	66	58	50	99	87	68	83	735		
			1905	47	50	56	78	100	69	94	81	94	104	62	57	892		
			1906	31	26	71	52	85	99	94	117	123	130	62	40	930		
			1907	25	39	29	22	40	50	47	56	66	41	25	37	478		
			1908	36	35	61	68	77	79	78	69	66	208	97	79	953		
Total					1904-1908	190	198	249	256	359	363	371	373	448	571	314	296	3,988
Pneumonia	...	{	1904	147	131	89	60	65	69	38	61	46	73	88	97	965		
			1905	86	122	94	89	65	42	53	55	54	64	72	100	896		
			1906	95	88	71	70	85	83	54	48	67	68	101	133	963		
			1907	125	103	72	54	60	47	62	53	66	68	146	218	1,074		
			1908	175	108	148	75	66	62	64	49	79	105	118	210	1,259		
Total					1904-1908	628	552	474	348	341	303	271	267	312	378	525	758	5,157
Dysentery	...	{	1904	508	382	580	561	515	675	868	952	748	706	669	583	7,747		
			1905	410	330	377	590	607	592	751	978	901	763	635	562	7,496		
			1906	432	336	446	534	572	568	855	1,079	794	756	615	538	7,525		
			1907	480	342	502	393	506	470	645	716	672	583	497	497	6,328		
			1908	350	260	422	539	543	559	837	1,023	953	824	810	676	7,796		
Total					1904-1908	2,180	1,650	2,327	2,622	2,743	2,864	3,956	4,768	4,068	3,632	3,226	2,856	36,892
Typhoid	...	{	1904	201	270	410	350	323	355	454	417	317	236	213	228	3,774		
			1905	179	133	294	378	364	321	423	489	337	273	221	186	3,603		
			1906	182	135	331	425	308	326	482	519	338	253	234	201	3,734		
			1907	200	178	282	262	269	294	341	371	306	262	221	221	3,207		
			1908	177	167	297	359	336	354	464	472	355	336	254	235	3,806		
Total					1904-1908	939	888	1,614	1,774	1,600	1,650	2,164	2,268	1,655	1,360	1,143	1,071	18,124

*Excluding Andamans.

D.—SICKNESS AND MORTALITY FROM PRINCIPAL DISEASES.	INFLUENZA.				CHOLERA.				SMALL-POX.				ENTERIC FEVER.				MALARIA.				PYREXIA OF UNCERTAIN ORIGIN.				TUBERCLE OF THE LUNGS.				PNEUMONIA.			
	Actuals.		Ratios.		Actuals.		Ratios.		Actuals.		Ratios.		Actuals.		Ratios.		Actuals.		Ratios.		Actuals.		Ratios.		Actuals.		Ratios.		Actuals.		Ratios.	
	Admissions.	Deaths.	Admission rates.	Death rates.	Admissions.	Deaths.	Admission rates.	Death rates.	Admissions.	Deaths.	Admission rates.	Death rates.	Admissions.	Deaths.	Admission rates.	Death rates.	Admissions.	Deaths.	Admission rates.	Death rates.	Admissions.	Deaths.	Admission rates.	Death rates.	Admissions.	Deaths.	Admission rates.	Death rates.	Admissions.	Deaths.	Admission rates.	Death rates.
Years.	Average annual strength. ††																															
1899	...	20	16.4	.20	101	62	1.0	.63	22	5	.2	.05	21	12	.2	.12	24,739	133	250.6	1.35	2,257	4	22.9	.04	770	305	7.8	3.09	1,518	338	15.4	3.42
1900	...	34	12.2	.31	505	278	4.6	2.52	116	14	1.1	.13	34	17	.3	.15	30,611	202	277.7	1.84	3,085	1	28.0	.01	973	415	8.8	3.76	1,654	459	15.0	4.16
1901	...	13	27.9	.12	211	106	2.0	1.01	63	10	.6	.10	41	20	.4	.19	33,231	139	316.4	1.32	1,279	2	12.2	.02	898	372	8.6	3.54	1,501	373	14.3	3.55
1902	...	16	8.7	.16	36	24	.4	.24	47	6	.5	.06	69	15	.7	.15	28,823	154	284.2	1.51	440	1	4.3	.01	918	352	9.1	3.67	1,339	330	13.2	3.25
1903	...	13	9.4	.15	97	57	1.1	.64	62	6	.7	.07	45	25	.5	.28	22,753	97	256.6	1.09	540	1	6.1	.01	769	281	8.7	3.17	1,206	302	13.6	3.41
1904	...	17	4.1	.19	47	31	.5	.34	25	4	.3	.04	55	14	.6	.15	19,627	75	217.2	.83	735	...	8.1	...	763	279	8.4	3.09	965	252	10.7	2.79
1905	...	15	11.5	.16	73	40	.8	.44	31	4	.3	.04	64	15	.7	.16	16,813	104	182.9	1.13	892	1	9.7	.01	803	293	8.7	3.19	896	210	9.7	2.38
1906	...	12	5.9	.13	187	105	2.0	1.10	82	9	.9	.09	102	18	1.1	.19	19,905	92	208.7	.96	650	...	9.7	...	844	306	8.8	3.21	953	243	10.1	2.55
1907	...	7	4.9	.08	140	55	1.5	.59	65	6	.7	.06	65	19	.7	.20	17,841	88	191.3	.94	478	...	5.1	...	704	256	7.5	2.74	1,074	270	11.5	2.90
1908	...	4	4.2	.04	337	170	3.3	1.68	123	15	1.2	.15	113	36	1.1	.36	20,039	105	197.7	1.04	953	2	9.4	.02	951	381	9.4	3.76	1,259	328	12.4	3.24

Years.	RESPIRATORY DISEASES.				DYSENTERY.				DIARRHŒA.				ANÆMIA AND DEBILITY.				E. Causes of deaths. 1908.	DIED PER 1,000 OF AVERAGE STRENGTH.				RELATIVE LIABILITY IN PERCENTAGES.				PERCENTAGES IN DEATHS FROM ALL CAUSES.			
	Actuals.		Ratios.		Actuals.		Ratios.		Actuals.		Ratios.		Actuals.		Ratios.			Actuals.		Ratios.		Actuals.		Ratios.		Actuals.		Ratios.	
	Admissions.	Deaths.	Admission rates.	Death rates.	Admissions.	Deaths.	Admission rates.	Death rates.	Admissions.	Deaths.	Admission rates.	Death rates.	Admissions.	Deaths.	Admission rates.	Death rates.		Admissions.	Deaths.	Admission rates.	Death rates.	European troops.	Native troops.	Prisoners. †	European troops.	Native troops.	Prisoners. †	European troops.	Native troops.	Prisoners. †
899	2,950	91	30.0	.92	8,938	426	90.5	4.32	5,094	113	51.6	1.14	1,440	71	14.6	.72	...	...	...	...	1.10	.91	1.68	29	25	46	11.3	12.3	6.9
900	3,188	93	28.9	.84	12,900	715	117.0	6.49	6,392	249	58.0	2.26	2,137	151	19.4	1.37	...	...	...	...	3.27	1.24	1.42	55	21	24	33.4	16.8	5.9
901	3,256	97	31.0	.92	10,666	540	101.6	5.14	5,926	132	49.8	1.26	1,657	82	15.8	.78	...	...	...	...	.43	.28	5.61	7	4	89	4.4	3.8	23.2
902	2,773	74	27.3	.73	8,951	407	88.2	4.01	4,862	141	47.9	1.39	1,389	60	13.7	.59	...	...	...	...	.03	.13	.55	4	18	77	.3	1.7	2.3
903	2,423	63	27.3	.71	7,292	283	82.3	3.19	3,714	68	41.9	.77	1,058	39	11.9	.44	...	...	...	...	.39	2.20	3.24	7	38	56	4.0	29.7	13.4
904	2,264	57	25.1	.65	7,747	263	85.7	2.91	3,774	88	41.8	.97	1,116	37	12.4	.41	...	...	...	...	.09	.29	1.03	6	21	73	.9	3.9	4.2
905	2,428	85	26.4	.92	7,496	277	81.6	3.01	3,603	68	39.2	.74	1,014	50	11.0	.54	...	...	...	...	.23	.42	3.76	5	10	85	2.4	5.6	15.6
906	2,400	68	25.2	.71	7,525	310	78.9	3.25	3,734	70	39.1	.73	1,193	52	12.5	.55	...	...	...	...	4.24	1.94	6.88	32	15	53	43.3	26.2	28.5
907	2,568	68	27.5	.73	6,328	240	67.9	2.57	3,207	75	34.4	.80	1,048	42	11.2	.45	...	...	...	...	...	...	...	...	...	...	...	...	...
908	2,366	104	23.3	1.03	7,796	473	76.9	4.67	3,806	95	37.6	.94	1,194	56	11.8	.55	...	...	...	...	9.78	7.41	24.17	24	18	58	100.0	100.0	10.0

* Enteric, Malaria and Pyrexia of uncertain origin. † Excluding Andamans.

F.—Statistics of convicts only. Ad.=Admission rates. D=Death rates.			1904.			1905.			1906.			1907.			1908.		
			Average strength.	RATIO PER 1,000 OF STRENGTH.		Average strength.	RATIO PER 1,000 OF STRENGTH.		Average strength.	RATIO PER 1,000 OF STRENGTH.		Average strength.	RATIO PER 1,000 OF STRENGTH.		Average strength.	RATIO PER 1,000 OF STRENGTH.	
				Ad.	D.		Ad.	D.		Ad.	D.		Ad.	D.		Ad.	D.
Burma	...	{ Central ...	6,962	381.1	21.69	7,491	278.9	17.62	7,797	246.6	13.59	8,226	255.9	10.45	8,376	279.8	12.89
		{ District ...	4,151	390.5	14.21	4,460	367.7	17.04	4,809	308.2	14.56	4,782	235.5	12.97	4,788	261.3	13.58
Assam including in 1905, 1906, 1907 and 1908 the jails of the new Province of E. B. and Assam.		{ Central ...	...	...	...	1,886	608.2	24.92	1,901	630.2	23.67	2,026	530.6	25.67	2,001	785.6	43.48
		{ District ...	1,430	650.6	28.68	4,392	1,248.4	35.06	4,832	997.1	30.22	5,147	991.1	31.09	4,883	981.2	27.65
Bengal excluding in 1905, 1906, 1907 and 1908 the jails transferred to Eastern Bengal.		{ Central ...	9,519	803.7	18.91	7,631	1,041.0	25.55	7,658	1,152.4	23.64	7,511	1,008.1	13.85	7,852	927.0	26.36
		{ District ...	8,483	1,154.1	21.81	5,885	931.5	23.96	6,305	943.5	23.31	6,121	928.6	21.40	6,724	973.4	38.22
United Provinces.		{ Central ...	5,913	502.7	12.78	9,389	489.8	15.76	9,934	482.4	14.90	9,394	498.2	11.60	11,287	453.2	20.20
		{ District ...	12,777	687.6	15.34	12,292	620.0	18.22	1,296	679.8	16.96	12,316	671.1	17.94	14,076	845.6	26.57
Punjab	...	{ Central ...	4,822	915.2	25.09	4,570	714.9	17.94	47,510	625.8	15.37	4,667	649.5	26.14	4,522	529.4	31.84
		{ District ...	5,930	961.2	15.85	5,961	740.3	16.10	6,017	868.2	17.28	5,549	792.8	15.86	6,244	649.3	18.90
North-West Frontier Province.		{ Central ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		{ District ...	1,055	118.2	16.11	1,077	1,053.9	21.36	1,091	1,631.5	24.75	960	1,311.5	19.79	1,040	1,431.7	14.42
Central Provinces.		{ Central ...	2,468	489.9	10.13	2,418	574.0	14.06	2,272	520.2	12.32	2,213	521.9	19.88	2,358	681.5	19.93
		{ District ...	1,085	847.9	18.43	864	862.3	16.20	784	866.1	15.31	731	595.1	12.31	1,177	604.1	26.34
Bombay	...	{ Central ...	3,039	556.8	17.11	3,092	654.6	12.94	3,146	894.2	13.35	3,236	928.9	18.23	3,321	727.8	19.57
		{ District ...	4,868	639.1	20.95	4,836	583.3	20.26	4,851	564.0	24.12	6,123	370.9	16.50	4,592	615.4	16.77
Madras	...	{ Central ...	6,129	439.9	15.01	6,695	506.6	15.98	7,464	462.8	22.37	7,341	394.8	20.16	7,641	417.1	21.86
		{ District ...	3,143	591.8	18.45	3,436	554.1	16.01	2,940	460.2	19.05	2,702	457.4	16.65	2,876	675.2	58.07
Total of the above Provinces.		{ Central ...	42,252	591.5	17.51	43,172	598.8	18.18	44,923	604.6	17.59	44,614	572.1	16.23	47,358	547.2	22.23
		{ District ...	42,922	791.3	17.99	43,203	723.2	20.39	44,598	736.3	20.16	44,431	670.2	18.82	46,400	765.3	26.70

G.—Statistics of convicts only. Arranged according to duration of confinement.				Not exceeding six months.	Above six months and not exceeding one year.	Above one year and not exceeding two years.	Above two years and not exceeding three years.	Above three years and not exceeding seven years.	Above seven years.	Total.
1904.	{ District Jails ...	Strength	...	11,446	7,605	8,328	5,642	6,749	2,475	42,245
		Deaths	...	196	132	151	70	140	51	740
		Ratio per 1,000 of strength	...	17.1	17.4	18.1	12.4	20.7	20.0	17.5
1905.	{ Central Jails ...	Strength	...	23,849	9,567	5,348	2,192	1,872	213	43,041
		Deaths	...	464	157	90	35	24	2	772
		Ratio per 1,000 of strength	...	19.5	16.4	16.8	16.0	12.8	9.4	17.9
1906.	{ District Jails ...	Strength	...	12,322	7,963	8,606	5,733	5,936	2,925	43,483
		Deaths	...	203	143	141	70	174	48	785
		Ratio per 1,000 of strength	...	16.47	17.96	16.38	13.26	29.31	16.41	18.05
1907.	{ Central Jails ...	Strength	...	23,285	9,771	5,741	2,315	2,063	236	43,413
		Deaths	...	477	195	125	29	42	8	876
		Ratio per 1,000 of strength	...	20.49	19.96	21.77	12.53	20.36	33.90	20.18
1908.	{ District Jails ...	Strength	...	13,611	8,288	8,297	5,820	5,898	3,107	45,021
		Deaths	...	207	146	141	107	146	43	790
		Ratio per 1,000 of strength	...	15.21	17.62	16.99	18.38	24.75	13.84	17.55
1909.	{ Central Jails ...	Strength	...	23,121	10,459	5,963	2,491	2,012	319	44,365
		Deaths	...	535	195	97	33	35	4	899
		Ratio per 1,000 of strength	...	23.14	18.64	16.27	13.25	17.40	12.54	20.26
1910.	{ District Jails ...	Strength	...	12,378	8,339	8,508	6,454	5,957	3,046	44,672
		Deaths	...	231	132	124	75	125	37	724
		Ratio per 1,000 of strength	...	18.66	15.83	14.57	11.62	21.02	12.15	16.21
1911.	{ Central Jails ...	Strength	...	21,741	10,058	5,947	2,494	2,001	415	42,656
		Deaths	...	495	175	99	32	31	4	836
		Ratio per 1,000 of strength	...	22.77	17.40	16.65	12.83	15.49	9.64	19.60
1912.	{ District Jails ...	Strength	...	24,367	10,893	6,330	2,727	1,961	372	46,650
		Deaths	...	819	214	122	34	43	7	1,239
		Ratio per 1,000 of strength	...	33.61	19.65	19.27	12.47	21.93	18.82	26.56
1913.	{ Central Jails ...	Strength	...	13,622	8,999	8,930	6,601	6,324	3,136	47,612
		Deaths	...	281	172	192	140	198	65	1,053
		Ratio per 1,000 of strength	...	21.00	19.11	21.50	21.21	31.31	20.73	22.12

APPENDIX TO SECTION V.—VITAL STATISTICS.
STATEMENT NO. I.—*Birth and Death Statistics.*

Province.	Year.	BIRTHS.			NUMBER OF DEATHS.			RATIO OF DEATHS PER 1,000 OF POPULATION.			HIGHEST DEATH-RATE.		LOWEST DEATH-RATE.		MEAN DEATH RATE DURING PREVIOUS FIVE YEARS.			Number of deaths of males to every 100 deaths of females.
		Total number.	Ratio per 1,000 of population.	Mean ratio per 1,000 of population during previous five years.	In municipalities and towns.	In districts excluding towns.	Total.	In municipalities and towns.	In districts excluding towns.	Total.	In municipalities and towns.	In districts excluding towns.	In municipalities and towns.	In districts excluding towns.	In municipalities and towns.	In districts excluding towns.	Total.	
Bengal ...	1907	1,905,425	37'70	39'08	116,272	1,789,920	1,906,192	36'23	37'82	37'72	95'95	56'09	7'66	23'52	37'52	34'43	34'63	105
	1908	1,823,716	36'09	38'90	100,134	1,848,379	1,948,513	31'20	39'06	38'56	94'25	68'38	6'58	26'93	37'26	35'41	35'53	109
Eastern Bengal and Assam.	1907	1,103,592	37'01	39'31	14,417	859,335	873,752	22'67	29'45	29'30	43'85	43'80	8'01	21'55	24'99	32'35	32'19	110
	1908	1,226,602	41'14	38'56	14,137	902,409	916,546	22'23	30'92	30'74	57'26	51'37	8'21	20'10	24'58	31'75	31'60	111
United Provinces of Agra and Oudh.	1907	1,963,963	41'18	44'02	185,190	1,887,346	2,072,536	55'14	42'57	43'46	142'87	87'58	18'29	24'12	50'69	37'16	38'12	102'49
	1908	1,786,702	37'46	43'09	165,121	2,349,640	2,514,761	49'20	53'00	52'73	114'53	81'22	18'68	27'43	52'38	39'38	40'30	102'84
Punjab ...	1907	819,571	40'8	43'3	110,180	1,138,549	1,248,729	54'65	62'93	62'10	144'31	106'67	12'15	19'02	48'44	44'99	45'33	104'3
	1908	840,061	41'8	42'6	111,973	908,152	1,020,125	55'58	50'19	50'73	121'43	84'35	5'80	19'21	49'58	48'86	48'93	102'8
North-West Frontier Province.	1907	62,062	32'5	36'3	6,072	60,945	67,017	36'00	35'04	35'12	58'47	41'59	13'81	31'63	30'57	29'51	29'61	109'5
	1908	71,181	37'3	35'8	6,002	62,359	68,361	35'59	35'85	35'83	65'39	37'41	7'50	32'25	32'99	31'44	31'54	110'5
Central Provinces and Berar.	1907	623,529	52'46	50'47	55,478	440,125	495,603	45'11	41'30	41'70	93'28	59'58	19'51	32'11	46'62	37'14	35'21	108'13
	1908	633,575	52'84	51'26	46,567	410,514	457,081	37'74	38'16	38'12	70'55	42'59	18'14	32'60	49'35	36'57	37'91	110'05
Madras Presidency.	1907	1,119,170	30'8	30'6	121,281	761,735	883,016	28'5	23'7	24'3	66'4	37'1	4'5	17'0	29'3	21'9	22'7	103'6
	1908	1,192,136	32'4	31'1	137,291	823,628	960,919	32'3	25'3	26'2	70'8	37'8	2'8	13'8	29'4	22'8	23'6	104'5
Coorg ...	1907	4,304	23'83	24'76	672	5,677	6,349	44'01	34'34	35'15	68'64	44'23	31'50	27'01	38'65	27'15	28'12	119'23
	1908	4,365	24'17	24'75	767	5,544	6,311	50'30	33'53	34'94	83'12	38'85	27'50	28'21	40'08	28'79	29'74	124'11
Bombay Presidency	1907	610,533	33'03	33'47	99,880	506,726	606,606	38'19	31'54	32'82	82'36	56'81	10'43	13'29	55'33	35'68	38'25	107'23
	1908	660,201	35'72	33'25	99,504	402,334	501,838	37'50	25'10	27'15	59'29	38'07	8'08	12'29	50'92	34'82	37'00	108'93
Lower Burma	1907	181,834	32'65	32'90	30,183	119,289	149,472	42'18	24'55	26'84	65'10	31'88	17'93	17'01	34'70	22'39	23'92	131
	1908	189,667	34'06	33'12	30,207	126,052	156,259	42'56	25'94	28'06	75'90	33'18	20'18	18'74	36'49	23'33	25'05	126
Upper Burma	1907	96,699	33'14	...	13,087	63,133	76,220	39'69	24'39	26'13	47'75	38'85	17'14	17'75	37'57	19'47	21'33	101
	1908	105,960	36'32	...	12,795	70,405	83,200	38'80	27'21	28'52	61'31	43'85	19'60	18'10	39'45	21'17	23'09	101
Ajmer-Merwara.	1907	14,881	31'20	33'06	5,288	8,843	14,131	40'79	25'46	29'63	61'02	43'01	25'52	17'42	42'79	26'78	31'13	10 6'9
	1908	20,261	42'48	32'09	6,819	12,274	19,093	52'60	35'34	40'03	90'37	55'23	36'77	23'89	42'77	25'90	30'49	103'68

STATEMENT NO. II.—*Total number of deaths by months.*

Province.	January.	February.	March	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	RATIO PER 1,000 OF POPULATION.		
														1908.	1907.	
Bengal ...	156,811	130,782	188,015	191,251	185,968	214,645	156,827	169,899	155,083	124,662	139,475	135,095	1,948,513	38·56	37·72	
Eastern Bengal and Assam.	71,485	59,328	84,201	89,970	86,804	80,293	62,957	63,396	65,773	61,424	91,624	99,291	916,546	30·74	29·30	
United Prov- inces of Agra and Oudh.	174,370	132,226	140,345	159,962	179,115	173,167	121,309	135,158	202,152	392,915	397,191	306,851	2,514,761	52·73	43·46	
Punjab ...	73,677	50,862	55,950	56,235	61,367	52,456	43,449	46,929	99,697	207,510	166,597	105,396	1,020,125	50·73	62·10	
North-West Frontier Prov- ince.	7,860	5,767	4,500	3,646	6,283	5,165	3,761	4,286	4,837	7,573	8,004	6,679	68,361	35·83	35·12	
Central Prov- inces and Berar.	35,453	29,819	32,501	34,722	38,189	34,805	28,205	41,900	52,573	50,969	42,005	35,940	457,081	38·12	41·70	
Madras Presi- dency.	96,862	75,883	74,050	67,144	69,981	74,263	88,066	96,811	81,417	74,302	77,390	84,750	960,919	26·2	24·3	
Coorg ...	393	425	590	509	672	814	646	607	452	389	384	430	6,311	34·94	35·15	
Bombay Presi- dency.	46,088	42,552	48,146	42,527	36,658	30,909	33,972	41,734	42,142	44,724	45,909	46,477	501,838	27·15	32·82	
Burma. {	Lower ...	14,069	11,620	10,772	11,827	11,864	12,796	16,727	15,604	13,657	13,243	12,537	11,543	156,259	28·06	26·84
	Upper ...	7,090	6,276	6,739	7,419	6,027	6,644	7,646	7,095	6,918	7,009	6,925	7,412	83,200	28·52	26·13
Ajmer-Merwara	1,620	1,377	1,724	1,587	1,218	880	846	1,363	1,668	2,380	2,263	2,167	19,093	40·03	29·63	
Total ...	685,778	546,917	647,533	666,799	684,146	686,837	564,411	624,782	726,369	987,100	990,304	842,031	8,653,007	38·21	37·18	

STATEMENT NO. III.—*Births.*

Province.	Population under registration.	Ratio of Births per 1,000 of population.			Number of males born to every 100 females born.	Excess of births over deaths per 1,000 of population.	Excess of deaths over births per 1,000 of population.
		Maximum for any one district.	Minimum for any one district.	Mean for the province.			
Bengal	50,528,446	44·68	20·10	36·09	105	...	2·47
Eastern Bengal and Assam ...	29,812,735	52·40	31·29	41·14	107	10·40	...
United Provinces of Agra and Oudh	47,691,782*	61·28	25·12	37·46	109·11	...	15·27
Punjab	20,108,690	74·3	19·7	41·8	109·7	...	8·9
North-West Frontier Province ...	1,908,184	40·8	35·1	37·3	123·6	1·5	...
Central Provinces and Berar ...	11,990,419	65·41	46·08	52·84	104·03	14·72	...
Madras Presidency	36,744,483	39·3	21·6	32·4	104·9	6·2	...
Coorg	180,607	37·04	17·44	24·17	101·43	...	10·77
Bombay Presidency	18,481,362	56·53	16·72	35·72	107·92	8·57	...
Burma { Lower	5,568,479	42·63	20·04	34·06	107	5	...
Upper	2,917,501	45·72	28·21	36·32	106	8	...
Ajmer-Merwara	476,912	54·13	39·02	42·48	114·67	2·45	...

Statement No. IV.—*Deaths.*

Province.	Population under registration.	Area in square miles.	Average population per square mile.	RATIO OF DEATHS PER 1,000 OF POPULATION.			DEATH RATE BY SEX.	
				Maximum for any one district.	Minimum for any one district.	Mean for the province.	Male.	Female.
Bengal	50,528,446	110,469	457	67·44	26·44	38·56	40·61	36·54
Eastern Bengal and Assam	29,812,735	71,555	416	51·40	19·97	30·74	31·75	29·69
United Provinces of Agra and Oudh.	47,691,782*	107,164	445	78·02	27·71	52·73	51·79	53·73
Punjab	20,108,690	97,209	207	84·1	25·1	50·7	47·9	54·0
North-West Frontier Province.	1,908,184	13,688	149	37·7	31·6	35·8	35·2	36·5
Central Provinces and Berar.	11,990,419	100,396	119	42·40	32·42	38·12	40·34	35·94
Madras Presidency	36,744,483	129,241	284	44·1	15·6	26·2	27·1	25·2
Coorg	180,607	1,583	114	38·85	32·25	34·94	34·86	35·05
Bombay Presidency	18,481,362	122,984	150	39·47	16·39	27·15	27·56	26·83
Burma { Lower	5,568,479	76,992	72	41·59	20·69	28·06	29·54	26·39
Upper	2,917,501	20,411	99	43·26	18·76	28·52	30·26	26·95
Ajmer-Merwara	476,912	2,711	176	41·15	36·26	40·03	38·72	41·50

STATEMENT NO. V.—*Deaths in Towns and Rural Circles compared.*

Province.	NUMBER OF REGISTRATION CIRCLES.			POPULATION.			RATIO OF DEATHS PER 1,000 OF POPULATION.		
	Rural.	Town.	Total.	Rural.	Town.	Total.	Rural.	Town.	Total.
Bengal	401	128	529	47,319,539	3,208,907	50,528,446	39·06	31·20	38·56
Eastern Bengal and Assam.	242	54	296	29,177,017	635,718	29,812,735	30·92	22·23	30·74
United Provinces of Agra and Oudh.	815	446	1,261	44,335,992*	3,355,790	47,691,782*	53·00	49·20	52·73
Punjab	408	143	551	18,094,078	2,014,612	20,108,690	50·19	55·58	50·73
North-West Frontier Province.	65	11	76	1,739,531	168,653	1,908,184	35·85	35·59	35·83
Central Provinces and Berar.	321	105	426	10,756,551	1,233,868	11,990,419	38·16	37·74	38·12
Madras Presidency .	190	232	422	32,494,434	4,250,049	36,744,483	25·3	32·3	26·2
Coorg	5	5	10	165,358	15,249	180,607	33·53	50·30	34·94
Bombay Presidency .	224	65	289	16,027,055	2,653,369	18,481,362†	25·10	37·50	27·15
Burma { Lower	219	39	258	4,858,774	709,705	5,568,479	25·94	42·56	28·06
Upper	113	17	130	2,587,732	329,769	2,917,501	27·21	38·80	28·52
Ajmer-Merwara .	17	6	23	347,280	129,632	476,912	35·34	52·60	40·03

* Includes 16,010 persons enumerated at the Ajodhya Fair.

† The total excludes the increased population of Bombay City according to the special Census of 1906.

APPENDIX TO SECTION V.—VITAL STATISTICS—concl'd.
STATEMENT NO. VI.—Deaths according to age.

Province.	RATIO PER 1,000 OF POPULATION.																			
	Under one year.		1—5 years.		5—10 years.		10—15 years.		15—20 years.		20—30 years.		30—40 years.		40—50 years.		50—60 years.		60 years and upwards.	
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.
Bengal* ...	303'92	264'68	59'97	53'30	22'55	18'71	16'05	14'00	19'63	18'39	23'30	21'55	27'97	23'86	34'64	27'12	54'66	48'34	100'76	81'61
Eastern Bengal and Assam.	255'85	212'56	41'45	36'64	15'41	12'42	10'86	10'05	15'90	18'58	17'26	20'71	21'32	23'11	27'94	25'27	43'09	37'38	77'48	59'58
United Provinces of Agra and Oudh.	419'33	418'79	115'96	117'78	25'98	24'30	13'60	13'56	16'12	19'92	20'58	22'97	25'14	25'03	38'32	35'40	66'66	62'90	130'22	117'13
Punjab ...	393'77	408'64	111'33	121'99	23'02	26'26	15'03	19'95	16'49	20'44	16'95	20'87	19'65	24'15	28'99	29'79	43'85	44'49	110'94	118'67
North-West Frontier Province.	232'1	190'4	55'6	54'2	15'8	16'9	10'5	13'0	9'5	11'1	13'6	17'4	17'7	23'4	27'6	32'5	43'3	43'5	84'6	87'2
Central Provinces and Berar	Information not available.																			
Madras Presidency. †	217'1	177'8	34'0	32'3	11'5	10'8	8'7	8'4	12'3	15'5	14'3	14'6	16'5	15'3	22'4	18'2	33'6	28'0	75'2	69'1
Coorg ...	222'30	191'98	56'67	53'99	13'70	11'88	9'68	10'88	16'94	16'66	22'7	20'96	33'18	30'35	44'04	38'95	62'33	50'12	90'65	85'17
Bombay Presidency.	316'66	280'84	49'01	46'53	8'71	9'21	7'19	8'34	12'13	13'99	13'84	15'21	16'02	15'56	22'86	17'26	36'14	28'81	81'75	74'68
Burma { Lower	339'64	246'72	84	29'23	14'85	13'14	10'83	9'68	14'40	12'12	15'45	14'72	20'49	19'79	27'74	23'75	33'21	28'54	76'24	72'21
Upper	351'52	255'09	32'30	33'70	12'46	11'86	8'36	7'68	11'35	9'19	11'75	12'21	15'07	16'21	19'38	15'73	30'21	22'29	76'92	67'64
Ajmer-Merwara.	298'13	310'51	166'53	169'80	16'99	16'45	6'50	6'84	9'35	16'91	12'67	18'32	17'33	20'55	26'19	22'59	51'13	43'52	101'09	87'73
Total ...	249'64	241'40†	67'29	64'55	18'76	17'00	12'34	12'16	15'84	17'75	18'52	19'66	22'14	21'60	30'8	26'52	48'88	44'08	98'75	87'59

* Revised population figures according to age of the Saran District not available and hence the discrepancy of 402 in the total population of the province.
† Calculated on the total population as per census of 1901, including Europeans, and Eurasians though the statistics are exclusive of Europeans and Eurasians and born dead.
‡ Ratio calculated on the number of births during 1908.
Note.—The total ratios under the age periods "1—5" to "60 years and upwards" exclude Central Provinces and Berar for which the age distribution of the population is not known.

STATEMENT NO. VII.—Deaths according to cause.

Province.	DEATHS PER 1,000 OF POPULATION IN 1908.								All causes.	Ratio of deaths in 1907.	Ratio of deaths in 1906.
	Cholera.	Small pox.	Plague.	Fevers.	Dysentery and Diarrhoea.	Respiratory diseases.	Injuries.	All other causes.			
Bengal	5'32	7'1	3'1	23'44	1'28	3'0	4'49	6'68	38'56	37'72	36'08
Eastern Bengal and Assam	1'99	3'1		20'37	8'3	1'3	3'3	4'76	30'74	29'30	31'67
United Provinces of Agra and Oudh.	1'75	1'25	4'8	41'31	4'1	4'3	5'7	6'52	52'73	43'46	35'07
Punjab	0'61	1'42	1'53	34'66	1'05	3'22	0'35	7'88	50'73	62'10	36'94
North-West Frontier Province	1'49	0'38	0'30	26'62	0'17	0'97	0'44	5'45	35'83	35'12	33'73
Central Provinces and Berar	0'76	0'75	0'52	18'16	3'40	2'59	5'58	11'36	38'12	41'70	43'47
Madras Presidency	3'9	0'6	0'1	8'0	1'7	0'8	0'3	10'8	26'2	24'3	27'4
Coorg	6'3	2'1	4'1	27'84	2'26	1'2	1'3	3'62	34'94	35'15	29'26
Bombay Presidency.	0'9	1'4	1'48	13'17	2'21	2'96	3'8	6'72	27'15	32'82	35'06
Burma { Lower	1'68	1'3	9'3	9'3	1'77	9'4	3'3	12'65	28'06	26'84	27'15
Upper	8'8	1'9	1'4	8'23	6'8	8'1	4'2	16'76	28'52	26'13	26'22
Ajmer-Merwara		1'81	1'5	30'79	1'52	6'1	4'0	4'75	40'03	29'63	32'22

STATEMENT NO. VIII.—Ratio of Deaths from all causes according to months.

Province.	§ANNUAL DEATH RATE PER MILLE FOR THE MONTH OF—												Rate for the year.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Bengal	36'64	32'67	43'93	46'18	43'45	51'83	36'64	39'70	37'44	29'13	33'68	31'57	38'56
Eastern Bengal and Assam	28'31	25'12	33'35	36'82	34'38	32'86	24'93	25'11	26'92	24'33	37'49	39'32	30'74
United Provinces of Agra and Oudh	43'17	34'99	34'74	40'92	44'34	44'30	30'03	33'46	51'71	97'27	101'61	75'96	52'73
Punjab	43'26	31'94	32'85	34'12	36'03	31'83	25'51	27'55	60'49	121'84	101'07	61'88	50'73
North-West Frontier Province	48'63	38'14	27'84	23'31	38'87	33'02	23'27	26'52	30'93	46'86	51'17	41'32	35'83
Central Provinces and Berar	34'91	31'39	32'00	35'33	37'60	35'41	27'77	41'26	53'49	50'19	42'74	35'39	38'12
Madras Presidency	31'12	26'06	23'79	22'29	22'49	24'66	28'30	31'11	27'03	23'87	25'70	27'23	26'15
Coorg	25'69	29'70	38'57	34'38	43'93	54'99	42'23	39'68	30'53	25'43	25'94	28'11	34'94
Bombay Presidency	29'43	29'06	30'75	28'07	23'41	20'40	21'69	26'65	27'85	28'56	30'31	29'85	27'15
Burma { Lower	29'83	26'34	22'84	25'91	25'15	28'03	35'47	33'08	29'92	28'08	27'47	24'47	28'06
Upper	28'69	27'15	27'27	31'02	24'39	27'78	30'94	28'71	28'93	28'36	28'96	29'99	28'52
Ajmer-Merwara	40'10	36'44	42'62	40'60	30'15	22'51	20'94	33'74	42'67	58'92	57'89	53'65	40'03
India	35'76	30'49	33'77	35'93	35'68	37'01	29'43	32'58	39'14	51'47	53'36	43'91	38'22

§The ratios in this statement have been calculated with reference to the number of days in each month.

Appendix A to Section VI.—Chief Diseases.

YEAR.	* Bengal.	Assam.	United Provinces of Agra and Oudh.	Punjab.	(a) N.-W. Frontier Province.	Central Provinces.	Berar.	Madras.	Coorg.	Bombay.	Lower Burma.	Upper Burma.†	Ajmer-Merwara.	Rajputana.	Central India.	Hyderabad (cantonment stations.)	Mysore.
1877	155,305	11,377	31,770	29	...	3,418	842	357,430	‡	57,228	7,276	...	11	60	926	7,414	2,902
1878	95,192	6,732	22,221	215	...	40,985	34,306	47,167	49	46,743	6,759	...	210	2,393	8,047	6,636	723
1879	130,363	17,415	35,892	26,135	...	27,575	223	13,296	...	6,937	1,828	...	120	918	2,734	6	14
1880	39,643	2,083	71,546	274	...	330	1	613	...	684	2,638	...	3	...	299	...	25
1881	79,180	5,010	25,865	5,207	...	9,140	3,404	9,446	3	16,604	5,239	...	16	197	581	1,721	25
1882	182,352	21,055	89,372	39	...	11,932	3,573	23,604	31	7,904	7,177	...	289	1,327	1,562	150	893
1883	90,439	14,908	18,160	190	...	16,235	27,897	36,284	...	37,954	2,185	...	87	797	1,740	1,947	124
1884	134,421	22,275	30,143	614	...	149	87	75,476	...	13,804	5,515	...	227	1,297	1,018	2,479	330
1885	173,767	7,753	63,457	1,936	...	21,868	3,683	58,109	...	37,287	7,685	...	100	1,615	4,624	1,387	2,677
1886	118,368	20,188	34,565	12	...	16,679	976	12,417	...	167	4,027	...	765	173	290	499	10
1887	172,578	7,941	200,628	8,804	...	12,576	14,396	28,359	3	25,711	2,649	...	384	2,612	8,868	2,831	832
1888	111,391	9,693	18,704	14,938	...	921	305	58,677	2	36,500	15,982	...	13	32	191	2,057	1,015
1889	171,103	18,283	48,494	2,838	...	52,588	10,925	76,020	9	32,431	3,240	...	55	6,923	3,344	1,128	1,590
1890	145,885	15,396	80,295	3,401	...	4,787	847	35,288	5	3,259	1,076	...	408	2,746	3,132	...	1,316
1891	229,575	23,882	169,013	10,107	...	21,312	7,958	98,773	7	17,850	2,400	...	532	2,946	13,474	3,102	1,204
1892	259,398	21,552	194,886	75,959	...	39,972	2,030	79,033	58	42,900	6,208	...	2,352	26,760	8,384	53	5,497
1893	126,976	21,849	12,154	639	...	557	1,188	32,209	9	18,853	2,393	...	3	314	127	165	680
1894	236,150	13,497	178,079	113	...	7,043	3,452	42,289	8	33,588	7,428	...	...	2	5,210	1,86	328
1895	177,087	18,962	51,562	549	...	15,506	11,919	21,172	...	8,890	5,150	...	289	1,049	6,043	467	2,334
1896	226,824	17,042	69,147	5,146	...	52,985	12,264	47,847	49	35,404	2,959	...	12	3,797	15,766	525	2,100
1897	196,247	33,240	44,208	622	...	57,131	10,122	143,445	106	57,109	8,558	...	19	1,496	13,202	1,039	4,248
1898	65,020	11,149	2,508	33§	...	7	...	65,444	8	4,368	2,972	...	1	6	2	6	1,193
1899	107,678	8,380	8,142	1,816	...	76||	541	29,082	...	8,579	4,942	2,050	1	498	...	...	123
1900	345,878	23,761	84,960	28,260	...	63,114	18,375	60,662	...	163,889	3,440	41	4,842	28,719	20,450	3,813	779
1901	110,753	7,468	53,995	180	117	49	17	81,370	58	13,600	3,552	‡	50	6	72	1	11,351
1902	150,971	12,658	25,160	371	...	28	16	29,769	...	3,230	1,844	57	32	1,519	12	...	218
1903	203,405	8,360	47,159	14,688	1,354	437	...	27,393	...	1,825	5,346	2,887	...	236	1,110	...	98
1904	137,701	5,583	6,617	716	1	2,967	...	23,109	...	13,156	2,472	508	...	1	150	...	471
1905	146,339	142,312**	121,790	2,197	300	1,217	...	16,883	...	5,396	3,511	1,836	...	3	27	64	626
1906	192,596	108,278	149,549	4,232	...	38,768	...	142,811	10	46,119	5,529	2,343	284	4,714	10,147	1,061	1,223
1907	205,702	77,181	22,438	437	266	4,291	...	81,565	187	7,656	7,964	414	1	64	413	1	4,972
1908	268,608	59,329	83,544	12,297	2,845	9,018	...	141,970	114	1,759	9,336	2,575	...	737	1,730	937	2,449

* Excluding Calcutta from 1877 to 1892.
† Statistics from 1877 to 1898 not available.
‡ Statistics not available.
§ Including 30 deaths in cantonments.

|| Excluding Zamindaris.
|| Including Berar from 1903.
** Eastern Bengal and Assam.
(a) 1877—1900 included in the Punjab.

STATEMENT II.—Deaths from CHOLERA in British Provinces, by months, during the year 1908.

Province.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	RATIO PER 1,000 OF POPULATION.	
														1908.	1907.
Bengal ...	11,826	12,564	29,984	42,895	46,192	53,793	30,124	25,035	10,343	3,317	1,602	1,173	268,908	5'32	4'07
Eastern Bengal and Assam.	3,242	2,630	8,892	16,568	15,330	5,598	2,348	1,121	815	530	685	1,570	59,329	1'99	2'58
United Provinces of Agra and Oudh.	79	43	86	2,232	11,657	16,661	4,689	11,993	19,349	14,483	2,126	146	83,544	1'75	'47
Punjab ...	...	...	1	443	1,966	2,130	2,155	2,520	2,354	654	74	...	12,297	0'61	0'02
North-West Frontier Province.	...	...	...	...	775	731	210	242	385	420	81	1	2,845	1'49	0'14
Central Provinces and Berar.	9	24	34	136	87	430	997	2,501	2,347	1,790	599	94	9,048	0'76	0'36
Madras Presidency.	15,649	11,08	8,829	7,375	8,102	11,695	19,956	25,685	12,428	7,036	6,079	8,055	141,970	3'9	2'2
Coorg ...	2	1	16	10	38	38	9	...	...	...	...	...	114	'63	1'04
Bombay Presidency.	49	90	111	49	91	328	416	241	37	5	102	240	1,759	'09	'41
Burma { Lower ...	652	368	564	1,422	1,222	761	1,218	609	555	1,058	686	221	9,336	1'68	1'43
Upper ...	26	58	149	473	47	60	501	197	261	487	180	136	2,575	'88	'14
Ajmer-Merwara	...	...	...	...	...	...	...	...	...	...	...	...	...	...	'002
Total ...	31,534	26,859	48,666	71,603	85,507	92,225	62,623	70,204	48,874	29,780	12,214	11,636	591,725	2'61	1'81

STATEMENT III.—Details of the distribution and occurrence of Cholera during the year 1908.

Province.			Mortality in 1908.	Mean mortality of previous 5 years.	Urban mortality.	Rural mortality.	Percentage of villages attacked.	Maximum mortality in any one district excluding towns.	Maximum mortality in any one town.	Month of maximum mortality.
Bengal	...	...	3	3'11	4'3	5'38	24'47	26'56	36'42	June.
Eastern Bengal and Assam	...	...	1'99	2'95	2'16	1'98	9'97	8'84	23'18	April.
United Provinces of Agra and Oudh	...	...	1'75	1'46	1'27	1'79	6'68	7'60	12'45	September.
Punjab	...	...	0'61	0'22	1'59	0'50	3'54	2'06	19'48	August.
North-West Frontier Province	...	...	1'49	0'20	2'77	1'37	13'10	2'35	5'55	May.
Central Provinces and Berar	...	...	0'76	'79	0'56	0'78	2'67	2'16	11'79	August.
Madras Presidency	...	...	3'9	1'6	4'8	3'7	26'17	9'2	49'5	August.
Coorg	...	...	'63	'22	...	'69	...	2'01	...	May and June.
Bombay Presidency	...	...	'09	'80	'19	'08	0'76	1'32	3'49	July.
Burma { Lower	...	...	1'68	'89	2'84	1'51	6'68	5'93	16'08	April.
Upper	...	...	'88	'55	1'43	'81	3'46	2'6	28'11	July.
Ajmer-Merwara	...	...	...	'12	...	...	...	...	...	...

TABLE I.—Small-pox mortality.

PROVINCES, DISTRICTS, TOWNS.	Bengal.	Eastern Bengal and Assam.	United Provinces of Agra and Oudh.	Punjab.	North-West Frontier Province.	Central Provinces and Berar.	Madras Presidency.	Coorg.	Bombay Presidency.	Lower Burma.	Upper Burma.	Ajmer-Merwara.	Registration India.
I.—Mortality by Provinces :—													
A.—Deaths by months :—													
January	2,935	551	4,738	2,268	143	639	2,275	10	133	18	17	216	13,943
February	2,799	715	4,677	1,786	87	629	2,435	4	227	48	41	123	13,571
March	4,921	1,183	7,225	2,842	45	999	3,204	2	444	77	98	173	21,213
April	6,390	1,535	11,641	3,737	48	1,370	2,493	15	419	82	153	165	28,048
May	5,534	1,585	12,478	5,057	78	1,420	1,958	6	335	116	117	89	28,773
June	5,330	1,296	9,325	5,227	75	1,298	1,553	1	217	71	88	46	24,527
July	2,663	715	5,733	3,868	77	966	1,512	...	172	98	31	13	15,848
August	1,370	372	2,204	1,580	43	614	1,264	...	97	117	3	7	7,671
September	622	302	804	904	41	265	1,256	...	62	30	2	...	4,268
October	351	197	250	562	17	170	1,242	...	58	32	...	...	2,879
November	358	310	400	422	37	253	1,436	...	105	26	...	21	3,868
December	2,193	612	521	399	43	421	1,596	...	257	33	...	10	6,085
Total	35,966	9,373	59,996	28,652	734	9,044	22,204	38	2,526	748	550	863	170,694
B.—Annual death ratios :—													
Ratio per 1,000 of population, 1908.	*71	*31	*26	*42	*38	*75	*6	*21	*14	*13	*19	*81	*75
Ratio per 1,000 of population, 1907.	*57	*29	*47	*55	*40	*32	*6	*17	*10	*28	*46	*04	*46
Difference	+*14	+*02	+*79	+*87	—*02	+*43	...	—*96	+*04	—*15	—*27	+*77	+*29
Mean ratio per 1,000 during 1903-07	*37	*23	*29	*54	*70	*44	*5	*70	*32	*63	*25	49	*38
Difference	+*34	+*08	+*97	+*83	—*32	+*31	+*1	—*49	—*18	—*50	—*06	+*32	+*37
II.—District mortality excluding towns :—													
Number of districts affected	32	22	48	29	5	23	22	3	22	13	9	17	245
Highest district ratio	3'32	3'95	5'79	5'11	0'81	2'59	1'8	0'78	*17	2'39	*97	5'23	5'79
Name of that district	Patna.	Darrang	Partabgarh	Lyallpur.	Peshawar	Bilaspur.	Vizagapatam.	Mercara Taluk.	Ratnagiri	Kyaukpyn	Pakokku.	Pohkar.	Partabgarh.
Lowest district ratio	*008	*009	*01	*04	*01	*007	*04	*05	*003	*002	*02	*39	*002
Name of that district	Darjeeling	Cachar	Muttra.	Dera Ghazi Khan.	Bannu.	Murwara	Finnevelly	Kiggatnad	Hyderabad.	Henzada	Meiktila.	Masada.	Henzada.
Number of districts without mortality.	None	None	None.	None	None	1	None.	2	3	5	2	None.	13
District death rate per 1,000 of population.	*69	*31	1'29	1'36	*39	*75	*6	*23	*06	*15	*18	1'80	*75
III.—Town mortality :—													
Number of towns affected	102	24	78	128	4	54	112	None.	26	9	4	5	546
Highest town ratio	11'82	2'96	9'07	11'63	1'79	12'40	6'9	...	3'56	1'91	2'47	4'82	12'40
Name of that town	Dumka	Golaghat.	Mubarakpur.	Shahabad	Haripur.	Rajim.	T. C. Razam.	...	Dhulia.	Kyaukpyn	Pakokku.	Ajmer Suburb.	Rajim.
Lowest town ratio	*03	*04	*02	*13	*05	*03	*02	...	*05	*03	*02	*31	*02
Name of that town	Baranagore.	Sirajganj.	Jhansi.	Isa Khel.	Kohat.	Burhanpur.	M. T. C. Cuddalore	...	Chopda.	Bassein.	Mandalay.	Nasirabad Town.	Mandalay.
Number of towns without mortality.	26	30	27	15	7	51	120	5	39	30	13	1	364
Town death rate per 1,000 of population.	*90	*21	*79	2'05	*28	*76	*3	...	*58	*05	*23	1'84	*76
IV.—Infantile mortality :—													
Children under one year	6,028	1,571	19,362	6,469	156	3,349	6,665	...	666	34	39	300	44,669
Children 1—10 years	13,898	3,401	30,134	16,965	484	3,314	5,955	...	900	84	175	551	75,861
Percentage of children in total small-pox mortality.	55'40	53'05	82'50	81'89	87'19	73'67	56'84	...	62'00	15'78	38'91	98'61	70'61

TABLE II—Fever mortality.

PROVINCES, DISTRICTS, TOWNS.	Bengal.	Eastern Bengal and Assam.	United Provinces of Agra and Oudh.	Punjab.	North-West Frontier Province.	Central Provinces and Berar.	Madras Presidency.	Coorg.	Bombay Presidency.	Lower Burma.	Upper Burma.	Ajmer-Merwara.	Registration India.
I.—Mortality by Provinces :—													
A.—Deaths by months :—													
January	101,607	52,715	135,077	45,692	6,319	15,846	27,817	326	23,843	5,830	2,372	1,111	418,555
February	79,855	43,397	96,488	28,432	4,496	13,175	21,528	327	21,218	4,387	1,787	1,016	316,106
March	105,640	58,485	96,057	28,414	3,398	14,756	23,102	466	23,806	3,787	2,064	1,214	361,189
April	102,978	56,995	102,855	25,747	2,548	16,534	21,578	387	20,245	3,711	2,203	1,078	356,859
May	99,667	55,239	112,605	31,270	3,946	19,025	23,156	502	17,227	3,793	1,718	877	369,935
June	113,815	58,788	110,304	28,949	3,269	17,596	23,369	582	14,234	4,294	1,891	664	377,755
July	88,953	47,216	82,457	22,796	2,557	12,300	24,904	528	15,174	5,625	1,972	653	305,135
August	102,841	48,745	93,397	25,650	2,893	18,024	25,613	503	18,286	5,520	1,892	1,083	344,447
September	100,922	50,319	153,184	69,428	3,243	24,720	26,359	399	18,348	4,278	1,964	1,385	454,549
October	89,226	46,362	344,862	169,155	5,910	26,233	24,382	332	22,003	3,881	1,925	2,016	736,287
November	103,489	71,830	363,545	138,161	6,632	22,015	25,501	318	24,796	4,102	2,082	1,837	764,358
December	95,711	77,005	279,488	83,364	5,584	17,549	28,515	358	24,192	4,442	2,141	1,748	620,097
Total	1,184,704	667,146	1,970,319	697,058	50,795	217,773	295,834	5,028	243,372	53,650	24,011	14,682	5,424,372
B.—Annual death ratios.													
Ratio per 1,000 of population, 1908.	23'44	22'37	41'31	34'66	26'62	18'16	8'0	27'84	13'17	9'63	8'23	30'79	23'96
Ratio per 1,000 of population, 1907.	23'18	21'17	28'31	20'16	27'44	18'00	7'8	26'95	14'09	10'28	7'53	23'31	19'76
Difference	+ '26	+ '20	+ '00	+ '50	— '82	+ '16	+ '2	+ '89	— '92	— '65	+ '70	+ '48	+ '20
Mean ratio per 1,000 during 1903-1907	22'21	22'44	26'88	20'60	24'32	16'59	8'0	24'18	13'98	9'81	7'25	23'13	19'35
Difference	+ '13	— '07	+ '43	+ '06	+ '30	+ '157	...	+ '66	— '81	— '18	+ '98	+ '66	+ '61
II.—District mortality excluding towns:—													
Number of districts affected ...	32	22	48	29	5	24	22	5	25	18	11	17	253
Highest district ratio... ..	40'30	37'86	72'29	57'71	29'24	26'22	20'9	34'12	27'20	16'38	16'70	50'45	72'29
Name of that district	Palamau	Jalpaiguri	Bareilly	Delhi	Peshawar.	Damoh	Vizagapatam	Nanjaraipatna.	Broach	Tharrawaddy.	Mandalay	Ghegal	Bareilly
Lowest district ratio	9'94	13'47	19'40	7'13	25'23	6'71	1'2	21'31	5'19	2'86	3'93	18'04	1'2
Name of that district	Howrah	Sylhet	Ballia	Simla	Dera Ismail Khan	Buldana	Anantapur	Yedenal-knad.	Belgaum	Maubin	Meiktila	Sawar	Anantapur
Number of districts without mortality.	None	None	None	None	None	None	None	None	None	None	None	None	None.
District death rate per 1,000 of population.	24'30	22'59	41'88	34'90	27'44	18'93	8'3	28'10	13'80	10'31	8'85	32'37	24'67
III.—Town mortality :—													
Number of towns affected	128	54	105	143	11	105	231	5	65	39	17	6	909
Highest town ratio	36'51	30'45	104'69	91'38	36'22	24'94	23'7	34'38	27'35	20'82	8'93	56'51	104'69
Name of that town	Sahibganj.	Sherpur	Kairana	Hodal	Nowa-shahr.	Yeotmal	T. C. Srimgavara-pukota	Somwarpet.	Umarnkot	Allanmyo	Yenangyaung.	Pisangan	Kairana
Lowest town ratio	1'45	2'93	9'97	1'22	2'50	1'11	0'1	20'20	'93	'75	1'05	13'35	0'1
Name of that town	Budge Budge.	Mymensingh	Mirzapur (Bhadachal.)	Dharmasala.	Tank	Deulgaon	T. C. Kosgi	Mercara	Bijapur	Zalun	Myingyan.	Ajmer	T. C. Kosgi.
Number of towns without mortality.	None	None	None	None	None	None	1	None	None	None	None	None	1
Town death rate per 1,000 of population.	10'76	12'55	33'85	32'53	18'16	11'49	5'09	24'98	8'38	5'03	3'38	26'54	15'77

TABLE NO. III.—Dysentery and Diarrhœa mortality.

Provinces, Districts and Towns.	Bengal.	Eastern Bengal and Assam.	United Provinces of Agra and Oudh.	Punjab.	North-West Frontier Province.	Central Provinces and Berar.	Madras Presidency.	Coorg.	Bombay Presidency.	Lower Burma.	Upper Burma.	Ajmer-Merwara.	Registration India.
A.—Mortality by Provinces :—													
A.—Deaths by months—													
January	4,691	1,376	1,313	1,043	35	2,562	7,280	13	3,365	659	113	29	22,479
February	4,013	1,288	938	722	19	2,007	5,110	21	3,009	573	118	31	17,849
March	5,907	1,613	1,098	764	21	2,243	4,871	46	3,118	671	138	44	20,534
April	5,421	2,377	1,777	1,021	27	2,656	4,268	38	3,286	767	158	56	21,852
May	5,358	2,796	2,339	1,627	46	2,848	4,330	74	3,294	955	148	50	23,865
June	6,387	2,439	2,081	1,182	34	2,258	4,614	106	2,717	957	215	26	23,016
July	5,579	2,215	1,510	933	8	2,475	5,432	46	3,628	1,348	324	48	23,546
August	7,046	2,169	1,864	1,379	28	5,449	6,175	30	4,777	1,250	188	95	30,450
September	7,991	2,075	1,775	2,806	22	6,895	5,233	10	4,552	853	221	104	32,527
October	4,648	2,313	1,804	4,097	27	5,256	4,557	5	3,183	733	126	79	26,823
November	3,972	2,091	1,478	3,348	35	3,373	4,278	7	2,825	522	124	88	22,141
December	3,886	2,101	1,411	2,181	18	2,748	4,726	12	3,027	545	102	77	20,834
Total	64,899	24,853	19,388	21,103	320	40,760	60,874	408	40,781	9,833	1,975	727	285,921
B.—Annual death ratios :—													
Ratio per 1,000 of population, 1908 ...	1.28	.83	.41	1.05	0.17	3.40	1.7	2.26	2.21	1.77	.68	1.52	1.26
Ratio per 1,000 of population, 1907 ...	1.02	.68	.47	0.75	0.29	3.94	1.7	2.08	2.91	1.61	.47	1.04	1.25
Difference ...	+.26	+.15	-.06	+.30	-.12	-.54	...	+.18	-.70	+.16	+.21	+.48	+.01
Mean ratio per 1,000 during 1903-07 ...	.93	.72	.59	0.75	0.29	3.05	1.5	.93	3.12	1.51	.45	.97	1.20
Difference ...	+.35	+.11	-.18	+.30	-.12	+.35	+.2	+.133	-.91	+.26	+.22	+.55	+.06
II.—District mortality excluding towns :—													
Number of districts affected ...	32	22	48	29	5	24	22	5	25	18	11	10	251
Highest district ratio ...	9.62	7.69	8.38	3.17	0.31	9.53	4.8	3.40	7.35	2.94	.84	4.45	9.62
Name of that district ...	Purl	Lakhimpur.	Garhwal	Simla	Dera Ismail Khan.	Akola	Malabar	Yedenal-knad.	East Khandesh	Mergui	Pukokku	Dewair	Puri.
Lowest district ratio ...	.03	.01	.01	0.10	0.04	0.19	0.3	0.55	.01	.69	.12	.08	.01
Name of that district ...	Shahabad	Malda	Jaunpur	Heshiarpur.	Kohat	Bhandara	Vizagapatam.	Nanjara-patna.	Upper Sind Frontier	Maubin	Kyaukse	Pohkar	Jaunpur.
Number of districts without mortality.	None	None	None	None	None	None	None	None	None	None	None	7	7
District death rate per 1,000 of population.	1.19	.81	.30	0.84	0.10	3.37	1.4	1.79	2.03	1.36	.57	.19	1.12
III.—Town mortality :—													
Number of towns affected ...	125	52	93	138	10	105	215	4	63	33	17	5	865
Highest town ratio ...	8.05	11.20	6.61	8.75	2.30	11.70	9.9	16.11	12.81	12.06	4.93	12.96	16.11
Name of that town ...	Kurseong	Sibsagar	Chandausi	Jhang-Maghlana	Kulachi	Nandura	M. T. C. Bimlipatam.	Virajendrapet.	Nasirabad.	Insein	Yenaung-yauug.	Ajmer Suburb	Virajendrapet.
Lowest town ratio ...	.09	.14	.08	0.29	0.11	0.06	0.1	1.12	.07	.13	.23	.23	.06
Name of that town ...	Jangipur	Bogra	Rudauli	Tanda Umar.	Kohat	Umrer	T. C. Paramagudi.	Kodlipet	Larkhana	Nyaung-lebin.	Yamethin	Pisangan Town.	Umrer
Number of towns without mortality.	3	2	12	5	1	None	17	1	2	1	None.	1	45
Town death rate per 1,000 of population.	2.54	1.62	1.83	2.90	0.91	3.67	3.5	7.34	3.10	4.54	1.54	5.08	2.86

TABLE IV.—Plague mortality.

Province or State.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	
													1908.	1907.
British Provinces:—														
Bengal	1,587	3,351	6,001	3,064	489	157	109	70	99	161	318	542	15,948	83,602
Eastern Bengal and Assam	...	...	...	...	...	...	...	...	...	...	...	...	...	8
United Provinces of Agra and Oudh.	2,743	5,148	7,895	5,042	907	90	55	39	93	81	209	576	22,878	328,861
Punjab	1,173	3,130	7,407	10,459	4,711	662	19	15	244	621	983	1,284	30,708	608,685
North-West Frontier Province.	1	...	32	219	260	49	2	...	...	...	...	...	563	1,547
Central Provinces and Berar	629	894	728	338	22	...	9	272	1,101	1,160	535	548	6,236	37,774
Madras Presidency ...	464	318	399	201	138	114	236	491	314	324	223	136	3,358	2,872
Coorg	2	9	6	...	1	4	...	...	...	2	2	...	26	2
Bombay Presidency ...	2,245	2,557	3,776	3,185	1,650	457	542	1,611	3,011	3,712	2,699	1,890	27,345	93,609
Burma { Lower ...	717	1,056	759	393	443	522	647	273	107	66	57	129	5,169	5,972
	Upper ...	269	363	231	38	15	11	6	38	73	105	428	1,583	3,277
Ajmer-Merwara ...	12	4	32	20	...	...	...	...	3	2	1	...	74	13
Total... { 1908 ...	9,842	16,840	27,266	22,959	8,627	2,070	1,630	2,777	5,010	6,202	5,132	5,533	113,888	...
	1907 ...	57,320	102,249	237,051	348,607	270,406	61,246	11,840	10,004	22,915	23,148	11,921	9,516	1,166,223
Native States, etc:—														
Bengal Native States ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Eastern Bengal and Assam Native States.	...	...	...	...	...	...	...	...	...	...	...	...	...	7
United Provinces of Agra and Oudh Native States.	...	...	...	...	3*	...	...	...	...	...	...	...	3*	185
Punjab Native States ...	217	645	1,946	2,491	2,390	225	1	...	81	320	563	545	9,424	61,231
Native States in Central Provinces.	...	...	...	...	...	...	...	...	...	...	...	...	...	255
Madras Native States ...	2	...	...	...	...	...	...	...	...	...	...	...	2	1
Bombay Presidency Native States.	1,581	2,005	2,374	1,796	457	215	76	663	1,972	1,583	898	707	14,327	54,186
Baluchistan ... ..	...	...	...	...	...	1	...	...	...	...	...	...	1	5
Bangalore Civil and Military Station.	164	112	57	19	24	18	16	32	114	86	67	41	750	1,255
Rajputana	668	1,989	2,913	1,031	191	2	...	...	144	304	285	335	7,862	5,826
Central India	65	214	125	37	2	...	...	50	162	560	277	112	1,404	8,809
Hyderabad State ...	205	93	57	22	4	...	54	338	220	389	179	64	1,625	3,038
Mysore	1,461	1,064	641	158	158	172	400	739	703	639	570	428	7,133	11,854
Jammu and Kashmir States	...	4	4	42	3	6	...	2	...	...	...	...	61	3,017
Total { 1908 ...	4,363	6,126	8,117	5,596	3,232	639	547	1,824	3,396	3,681	2,839	2,232	42,592	...
	1907 ...	7,937	12,787	20,027	24,143	24,482	5,050	3,043	6,268	14,255	17,766	8,988	4,738	149,669
GRAND TOTAL { 1908 ...	14,205	22,966	35,383	28,555	11,859	2,709	2,177	4,601	8,406	9,883	7,971	7,765	156,480	...
	1907 ...	65,257	115,035	257,078	372,750	294,888	66,296	14,883	16,272	37,170	40,914	20,909	14,254	1,315,892
Calcutta City	65	84	408	499	308	131	98	54	33	35	31	33	1,779	...
Bombay City	80	350	1,452	1,811	951	203	135	143	107	62	28	26	5,348	...
Madras City ... ..	...	...	...	...	1	...	...	1	...	...	...	...	2	...

* Suspected plague deaths—imported.

TABLE V.—Mortality from Respiratory Diseases.

PROVINCES, DISTRICTS AND TOWNS.	Bengal.	Eastern Bengal and Assam.	United Provinces of Agra and Oudh.	Punjab.	North-West Frontier Province.	Central Provinces and Berar.	Madras Presidency.	Coorg.	Bombay Presidency.	Lower Burma.	Upper Burma.	Ajmer-Merwara.	Registration India.
I.—Mortality by Provinces:—													
A.—Deaths by months:—													
January	1,668	359	2,432	8,659	239	3,095	2,665	...	5,456	425	242	47	25,287
February	1,371	320	1,707	5,535	128	2,900	2,257	1	5,437	312	192	35	20,195
March	1,634	386	1,795	5,563	115	3,150	2,273	...	5,610	410	204	29	21,169
April	1,218	369	1,668	4,322	115	2,539	2,052	4	4,552	465	174	23	17,501
May	1,177	279	1,757	4,433	179	2,322	2,169	2	4,034	417	168	17	16,954
June	1,211	261	1,626	3,809	204	1,903	2,090	1	3,621	456	154	6	15,348
July	1,103	270	1,219	3,557	139	1,636	2,352	2	3,677	442	179	7	14,583
August	1,252	290	1,563	4,139	183	2,141	2,253	...	4,233	541	242	14	16,851
September	1,132	292	1,659	6,358	153	2,619	2,197	2	4,250	537	234	16	19,449
October	957	315	1,643	7,377	157	2,653	2,273	2	4,323	454	222	19	20,395
November	1,268	413	1,681	5,719	129	2,947	2,551	2	4,312	407	162	32	19,623
December	1,408	396	1,724	5,273	116	3,097	2,647	5	5,166	394	197	45	20,468
Total	15,399	3,950	20,474	64,744	1,857	31,002	27,779	21	54,671	5,260	2,370	290	227,817
B.—Annual death ratios:—													
Ratio per 1,000 of population, 1908.	30	13	43	322	097	259	08	12	296	94	81	61	101
Ratio per 1,000 of population, 1907...	29	09	46	320	099	264	07	43	314	70	64	78	100
Difference	+ 01	+ 04	— 03	+ 02	— 02	— 05	+ 01	— 31	— 18	+ 24	+ 17	— 17	+ 01
Mean ratio per 1,000 during 1903—07	21	06	46	303	063	158	06	19	316	61	56	74	088
Difference	+ 09	+ 07	— 03	+ 19	+ 34	+ 101	+ 02	— 07	— 20	+ 33	+ 25	— 13	+ 13
C.—District mortality excluding towns:—													
Number of districts affected	32	22	48	29	5	24	21	1	24	18	11	6	241
Highest district ratio	247	193	875	1364	133	1087	16	003	900	148	93	49	1364
Name of that district	Puri	Lakhimpur.	Hamirpur	Delhi	Hazara	Jubbulpore.	Anantapur.	Yedenal-knad.	Kaira	Tavoy	Lower Chindwin	Pohkar	Delhi.
Lowest district ratio	003	007	01	009	019	014	01	003	03	01	03	04	003
Name of that district	Darbhanga.	Chittagong.	Bulandshahr.	Muzaffargarh.	Kohat	Seoni	Vizagapatam.	Yedenal-knad.	Larkhana	Sandoway	Kyaukse	Beawar	Darbhanga.
Number of districts without mortality.	None	None	None	None	None	None.	1	4	1	None	None	11	17
District death rate per 1,000 of population.	18	12	26	292	063	243	07	06	209	32	28	08	077
II.—Town mortality:—													
Number of towns affected	98	33	94	143	11	94	177	1	63	34	17	4	769
Highest town ratio	608	281	2136	1485	939	1630	91	297	1976	1175	1347	400	2136
Name of that town	Calcutta	Mangaldai.	Rath	Dalhousie	Buffa	Khurai	M. T. C. Cochin.	Mercara	Ahmednagar.	Wakema	Taungdwingyi.	Ajmer Suburb.	Rath.
Lowest town ratio	05	08	01	028	063	006	01	297	13	13	58	28	01
Name of that town	Purulia	Narayan-ganj.	Saharanpur.	Khangarh	Tank	Umrer	T. C. Tenkasi	Mercara.	Mahad	Shwegyin	Yamethin	Kekri	Saharanpur.
Number of towns without mortality	30	21	11	None.	None	11	55	4	2	5	None	2	141
Town death rate per 1,000 of population.	210	30	272	594	453	397	16	131	796	519	495	202	358

Statement No. I. Total Primary vaccinations and Revaccinations, successful cases among the children, cost of the Special Vaccination Department, etc., during the official year 1908-09.

PROVINCE.	NUMBER OF OPERATIONS PERFORMED BY THE SPECIAL AND DISPENSARY STAFFS COMBINED.		PERCENTAGE OF SUCCESSFUL CASES* TO TOTAL OPERATIONS.		NUMBER OF CHILDREN SUCCESSFULLY VACCINATED BY THE SPECIAL AND DISPENSARY STAFFS COMBINED.		Average number of operations performed by each vaccinator of the Special Staff.	Total cost of the Special Department.	Average cost of each successful case vaccinated by the Special Department.
	Primary.	Revaccination.	Primary.	Revaccination.	Under one year.	1 to 6 years.			
Bengal†	1,810,213	209,318	99'34	61'78	851,786	843,147	1,077	2,17,721	Rs. A. P. 0 1 7
Eastern Bengal and Assam	1,351,834	100,426	98'76	74'26	377,425	770,543	1,257	1,10,614	0 1 3
United Provinces of Agra and Oudh	1,325,443	131,342	96'49	80'84	794,130	402,814	1,584	1,77,625	0 2 1
Punjab	523,087	145,811	98'43	76'93	417,998	74,850	2,531	1,14,761	0 3 1
North-West Frontier Province	81,181	10,187	98'38	82'14	49,125	17,542	‡ 2,591	12,575	0 2 5
Central Provinces and Berar	553,438	86,209	98'78	75'66	419,424	108,911	2,000	72,482	0 1 11
Madras	1,478,771	170,634	95'48	81'37	626,677	590,577	§ 1,983	3,21,757	0 3 5
Coorg	8,509	1,973	92'41	75'05	878	4,216	1,138	2,809	0 5 0
Bombay	673,347	52,425	96'02	70'65	470,417	104,887	1,654	3,27,370	0 8 5
Burma	342,977	53,436	93'59	59'99	88,317	154,678	1,476	1,49,847	0 7 5
Ajmer-Merwara	12,497	304	97'48	92'11	10,092	1,774	853	2,975	0 3 10
Total	8,161,297	962,065	97'47	73'44	4,106,269	3,073,939	1,507	15,10,536	0 2 10

* Excluding those the results of which were not known.

† Excluding figures for the Tributary States, Orissa, received too late for incorporation.

‡ Including the vaccinations performed in cantonments and Political Agencies.

§ Excludes average of work done by each medical subordinate.

Statement No. II.—Vaccination operations performed by the Special and Dispensary Establishments separately, deaths from small-pox, etc., during the official year 1908-09.

Province.	Population.	NUMBER OF OPERATIONS PERFORMED (PRIMARY AND REVACCINATIONS COMBINED).			Ratio of successful vaccinations per 1,000 of population.	Percentage of annual estimated births at 40 per 1,000 of population successfully vaccinated.	DEATHS FROM SMALL-POX*.	
		By Special Department.	By Dispensary Staff.	Total.			Number.	Ratio per 1,000 of population.
Bengal §	48,500,325	1,876,750	142,781	2,019,531	39'28	43'91	35,966	'71
Eastern Bengal and Assam	30,788,134	1,447,639†	4,621¶¶	1,452,260	45'24	30'65	9,373	'31
United Provinces of Agra and Oudh	47,960,667†	1,456,020	765	1,456,785	28'30	41'39	59,996	1'26
Punjab	20,296,870	668,150	748	668,898	29'32	51'49	28,652	1'42
North-West Frontier Province	2,030,268	90,687	681	91,368	41'86	60'49	734	'38
Central Provinces and Berar	13,621,559	614,072*	25,575	639,647*	43'84	76'98	9,044	'75
Madras	38,227,818	1,649,350(a)	55¶	1,649,405	39'19	40'98	22,204	'6
Coorg	180,607	10,250	232	10,482	50'68	12'15	38	'21
Bombay	21,438,769	724,075¶	1,697	725,772¶	29'03	54'86	2,526	'14
Burma	10,477,508	382,326	14,087	396,413	31'77	21'07	1,298	'15
Ajmer-Merwara	476,912	12,801	...	12,801	26'13	52'90	863	1'81
Total	233,999,437	8,932,120	191,242	9,123,362	35'93	43'87	170,694	'75

* For the calendar year.

§ Excluding 222,045 operations in the Tributary States, Orissa, received too late for inclusion.

† Including 2,568 secondary operations.

¶¶ Including

34

16,010

89

(a) 23,150

1,158

secondary operations.

persons enumerated at the Ajodhya Fair.

secondary operations.

" "

" "

" "

Statement No. III—Vaccination in the European and Native Armies of India during 1908.

Effective Strength.

Armies.	EUROPEAN TROOPS.								NATIVE TROOPS.							
	OFFICERS.				WARRANT AND NON-COMMISSIONED OFFICERS AND MEN.				EUROPEAN OFFICERS.				NATIVE COMMISSIONED, NON-COMMISSIONED OFFICERS AND MEN.			
	Number.		Percentage of successful cases to total operations.		Number.		Percentage of successful cases to total operations.		Number.		Percentage of successful cases to total operations.		Number.		Percentage of successful cases to total operations.	
	Primary.	Revaccination.	Primary.	Revaccination.	Primary.	Revaccination.	Primary.	Revaccination.	Primary.	Revaccination.	Primary.	Revaccination.	Primary.	Revaccination.	Primary.	Revaccination.
Northern	23	613	65	66	91	10,079	68	56	...	290	...	62	3,621	22,813	76	51
Southern ... ..	...	103	...	42	1	5,785	100	47	3	191	100	43	3,348	26,461	71	43
Extra India not in the Indian command.	...	...	...	...	...	...	...	...	...	9	...	33	125	519	43	57
India	23	716	65	63	92	15,864	68	52	3	490	100	54	7,094	49,793	73	47

Non-effective Strength—Families.

A.—European Troops.

Armies.	OFFICERS' WIVES.				OFFICERS' CHILDREN.				SOLDIERS' WIVES.				SOLDIERS' CHILDREN.			
	Number.		Percentage of successful cases to total operations.		Number.		Percentage of successful cases to total operations.		Number.		Percentage of successful cases to total operations.		Number.		Percentage of successful cases to total operations.	
	Primary.	Revaccination.	Primary.	Revaccination.	Primary.	Revaccination.	Primary.	Revaccination.	Primary.	Revaccination.	Primary.	Revaccination.	Primary.	Revaccination.	Primary.	Revaccination.
Northern	132	...	77	10	61	80	77	6	666	83	79	889	429	85	73
Southern	13	...	23	3	...	67	...	17	374	100	65	568	250	76	54
India	145	...	72	13	61	77	77	23	1,040	96	74	1,457	679	81	66

B.—Native Troops.

Armies.	EUROPEAN OFFICERS' WIVES.				EUROPEAN OFFICERS' CHILDREN.				NATIVE SOLDIERS' WIVES.				NATIVE SOLDIERS' CHILDREN.			
	Number.		Percentage of successful cases to total operations.		Number.		Percentage of successful cases to total operations.		Number.		Percentage of successful cases to total operations.		Number.		Percentage of successful cases to total operations.	
	Primary.	Revaccination.	Primary.	Revaccination.	Primary.	Revaccination.	Primary.	Revaccination.	Primary.	Revaccination.	Primary.	Revaccination.	Primary.	Revaccination.	Primary.	Revaccination.
Northern	41	...	95	24	21	100	90	648	336	82	67	2,585	466	83	67
Southern	43	...	37	48	3	98	33	215	1,374	81	65	3,735	1,204	79	53
Extra India not in the Indian command.	...	2	...	100	...	...	...	...	...	...	...	...	...	...	...	...
India	86	...	66	72	24	99	83	863	1,710	82	66	6,320	1,670	81	57

ANNUAL RETURNS
OF THE
EUROPEAN ARMY OF INDIA
OF THE
NATIVE ARMY AND OF THE JAIL
POPULATION
FOR THE YEAR
1908.

COMPILED AND SYSTEMATICALLY ARRANGED FROM THE ORIGINAL DOCUMENTS

BY

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Statistical Officer to the Government of India, in the Sanitary and Medical Departments.

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* Omitted for the present by order of Government.
† Under the orders of the War Office these tables are no longer compiled for India.

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IV.—TROOPS AND PRISONERS, 1908.

Detail of diseases	LIII	134
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NOTE.—In the tables for European troops, Native troops, and for prisoners, the months mentioned are calendar months.

TABLE G.

*Grouping of Diseases in the Main Tables for 1908.**

HEAD OF DISEASE.	Includes or includes also
CHOLERA	
HEAT-STROKE	Sunstroke.
ALCOHOLISM	Delirium tremens. Alcoholic Poisoning.
TUBERCLE OF THE LUNGS	Tubercular Phthisis, and Hæmoptysis due to tubercle.
RESPIRATORY DISEASES	Includes Hæmoptysis and Cirrhosis of the lung not due to tubercle.
ANÆMIA AND DEBILITY	Old age (Tables for men and women). Premature birth (Tables for children).
DIARRHŒA	
HEPATIC CONGESTION AND INFLAMMATION.	Congestion of liver, Hepatitis, Perihepatitis ; but excludes Cirrhosis of liver.
VENEREAL DISEASES	Syphilis, Gonorrhœa, and Soft Chancre.
GUINEA-WORM AND	} The entozoa numbered from 1 to 84, 95 to 113: also Nos. 152 and 153.
OTHER ENTOZOA	
PHAGEDÆNA, SLOUGH, AND GANGRENE.	Nomenclature of 1906, Nos. 17 and 954, and 967. } These two headings appear only in jail tables.
ABSCESS, ULCER, AND BOIL	Nomenclature of 1906, Nos. 953 and 965. }
ABORTION AND AFFECTIONS CONNECTED WITH PREGNANCY	Nos. 506 and 827 to 838.
AFFECTIONS CONNECTED WITH AND CONSEQUENT ON PARTURITION.	Nos. 839 to 870 and all other diseases stated as puerperal by medical officers.
ALL OTHER DISEASES PECULIAR TO WOMEN.	Nos. 765 to 826 and 871 to 882.

*For details of individual diseases, see Table LIII.

I.—EUROPEAN TROOPS, 1908.
A.—MEN.

TABLE D.

STATIONS by ARMIES.

(a) STATIONS.	Height above sea level in feet.*	Authority for height.†	(a) STATIONS.	Height above sea level in feet.*	Authority for height.†	(a) STATIONS.	Height above sea level in feet.*	Authority for height.†
NORTHERN ARMY:—			NORTHERN ARMY:—contd.			SOUTHERN ARMY:—contd.		
Ambala	902	S. G.	Landour. Convalescent Depôt.	7,362	S. G.	Colaba (Bombay) and Khandalla Sanitarium.	{ 20 2,000	S. G. M. O.
Agra and Fatehgarh . . .	{ 554 444	I. B.	Lebong	6,000	I. B.	Deolali Depôt	1,829	S. G.
Allahabad	298	S. G.	Lucknow	400	S. G.	Fort Dufferin (Mandalay) .	249	"
Amritsar	756	"	Meerut	739	"	Hyderabad (Sind)	134	I. B.
Bareilly	560	"	Multan	402	"	Jhansi	860	S. G.
Barian Camp and Khairagali	{ 7,133 7,678	I. B. S. G.	Murree Convalescent Depôt and Upper and Lower Topas.	{ 7,250 7,000 7,320	M. O. I. B.	Jubbulpore	1,306	"
Barrackpore	24	S. G.	Muttra	576	"	Karachi	28	"
Benares	256	"	Naini Tal Convalescent Depôt.	6,400	S. G.	Kampti	930	"
Campbellpore and Attock .	{ 1,200 1,192	M. O. S. G.	Nowshera	1,100	M. O.	Kirkee	1,837	"
Cawnpore	417	"	Peshawar	1,165	S. G.	Madras and Poonamalee Depôt	{ 15 50	S. G. M. O.
Chakrata	6,885	"	Ranikhet and Chaubuttia .	{ 5,983 6,942	"	Maymyo	3,508	S. G.
Cherat	4,546	"	Rawalpindi	1,707	"	Meiktila	860	"
Dagshai	5,982	"	Rurki	884	"	Mhow and Indore	{ 1,903 1,806	" "
Dalhousie Convalescent Depôt.	6,732	"	Sialkot	829	"	Mount Abu Sanitarium .	3,960	"
Darjeeling ditto	7,168	"	Sitapur	449	"	Nasirabad	1,461	"
Delhi	715	"	Shahjehanpur	507	"	Neemuch	1,613	"
Dinapore	171	"	Solon	5,166	"	Nowgong	770	I. B.
Dum-Dum . . . . .	...	...	Subathu	4,124	"	Pachmarhi Sanitarium .	3,481	S. G.
Ferozepore	645	S. G.	SOUTHERN ARMY:—			Poona	1,909	"
Fort William	17	"	Aden	26	S. G.	Purandhar Sanitarium .	4,560	"
Fyzabad	336	"	Ahmednagar	2,125	"	Quetta	5,511	"
Gharial	6,811	"	Bangalore	3,021	"	Rangoon and Port Blair .	{ 14 85	" "
Jullundur	900	"	Belgaum	2,473	"	Saugor	1,753	"
Jutogh	6,371	"	Bellary	1,483	"	Secunderabad	1,732	"
Kalabagh and Baragali .	{ 7,936 7,800	I. B. M. O.	Bhamo	351	"	Shwebo	600	M. O.
Kasauli Convalescent Depôt	6,320	S. G.	Cannanore, Calicut and Malapuram.	{ 47 27 500	M. D. M. O.	St. Thomas' Mount . . .	250	S. G.
Khanspur	7,500	M. O.				Thayetmyo	145	"
Kuldana	7,049	S. G.				Wellington Convalescent Depôt.	6,160	"
Lahore Cantonment and Fort.	706	"						

* These heights are usually those of the survey-marks or of the mercury-surface in barometer-cisterns of meteorological observatories.

† S. G. = Surveyor-General of India; I. B. = Intelligence Branch of the Division of the Chief of the Staff; M. D. = Meteorological Department; M. O. = Medical Officers in charge of Station Hospitals in their Sanitary Reports.

{a} Stations with a height of 3,000 feet and over above the sea level are Official Hill Stations and Hill Sanitarium and Convalescent Depôts.

EUROPEAN TROOPS, 1908.

TABLE I.

RATIOS OF ARMIES.

The ratios of admissions and deaths to strength are taken from Table III. The actuals will be found in Table IV.

					RATIOS PER 1,000 OF THE AVERAGE STRENGTH.		
					Northern Army.	Southern Army.	India.*
I.—STRENGTH					36,676	30,243	68,933
II.—† CONSTANTLY SICK-RATE OF EACH MONTH—							
January					44·7	46·1	44·5
February					38·5	44·9	39·5
March					35·8	39·7	37·0
April					39·5	40·6	39·1
May					42·7	39·7	40·8
June					45·2	41·7	43·7
July					45·3	43·0	44·3
August					48·7	44·5	46·8
September					60·2	50·6	55·6
October					67·4	51·1	59·3
November					66·5	48·6	53·1
December					54·3	41·3	44·2
OF THE YEAR					49·0	44·3	45·7
III.—ADMISSION RATE OF THE YEAR—							
Influenza					10·8	1·1	6·3
Cholera					1·0	·2	1·3
Small-pox					1·3	·2	·8
Enteric Fever					16·6	12·3	14·5
Malaria					312·9	164·2	244·1
Pyrexia of uncertain origin					100·4	44·7	73·9
Tubercle of the lungs					1·6	1·2	1·3
Pneumonia					4·7	2·8	3·9
Respiratory Diseases					18·8	16·4	17·4
Dysentery					11·3	17·9	14·4
Diarrhœa					19·3	13·9	17·7
Hepatic Abscess					1·8	1·6	1·7
„ Congestion and Inflammation					10·5	7·6	8·9
Venereal Diseases					58·3	84·1	69·6
ALL CAUSES					939·5	724·4	839·5
IV.—DEATH RATE OF THE YEAR—							
Cholera					·76	·23	1·10
Small-pox					·03	·03	·03
Enteric Fever					3·22	2·28	2·76
Malaria					·57	·46	·51
Pyrexia of uncertain origin . . . . .					...	...	...
Heat-stroke					·79	·26	·54
Circulatory Diseases					·25	·26	·25
Tubercle of the lungs					·33	·13	·23
Pneumonia					·46	·33	·39
Respiratory Diseases					·14	·03	·09
Dysentery					·41	·40	·42
Diarrhœa					·03	...	·01
Hepatic Abscess					·87	·76	·80
ALL CAUSES					10·72	7·51	9·78
V.—PERCENTAGE IN 100 ADMISSIONS—							
Influenza					1·15	·16	·75
Cholera					·10	·03	·16
Small-pox					·13	·03	·09
Enteric Fever					1·76	1·70	1·73
Malaria					33·31	22·67	29·07
Pyrexia of uncertain origin					10·69	6·17	8·81
Tubercle of the lungs					·17	·16	·16
Pneumonia					·50	·38	·46
Respiratory Diseases					2·00	2·27	2·07
Dysentery					1·20	2·46	1·71
Diarrhœa					2·05	1·92	2·10
Hepatic Abscess					·19	·21	·20
„ Congestion and Inflammation					1·11	1·05	1·06
Venereal Diseases					6·21	11·60	8·30
VI.—PERCENTAGE IN 100 DEATHS—							
Cholera					7·1	3·1	11·3
Small-pox					·3	·4	·3
Enteric Fever					30·0	30·4	28·2
Malaria					5·3	6·2	5·2
Pyrexia of uncertain origin . . . . .					...	...	...
Heat-stroke					7·4	3·5	5·5
Circulatory Diseases					2·3	3·5	2·5
Tubercle of the lungs					3·1	1·8	2·4
Pneumonia					4·3	4·4	4·0
Respiratory Diseases					1·3	·4	·9
Dysentery					3·8	6·2	4·3
Diarrhœa					·3	...	·1
Hepatic Abscess					8·1	10·1	8·2

* Including troops on the line of march and with the Field Forces. For complete detail of diseases, see Table LIII.
† Worked on the aggregates.

EUROPEAN TROOPS, 1908.

TABLE II.

RATIOS of GEOGRAPHICAL GROUPS.

The ratios of admissions and deaths to strength are taken from Table III.

The actuals will be found in Table IV.

RATIOS PER 1,000 OF THE AVERAGE STRENGTH.

	I Burma Coast and Bay Islands.	II Burma Inland.	IV Bengal and Orissa.	V Gange- tic Plain and Chutia Nagpur.	VI Upper Sub- Hima- laya.	VII N.-W. Frontier, Indus Valley, and N.-W. Rajpu- tana.	VIII S.-E. Rajpu- tana, Central India, and Gujarat.	IX Deccan.	X Western Coast.	XI South- ern India.	XIIa Hill Stations.	XIIb Conva- lescent Depôts, and Sanita- ria.	India
I.—STRENGTH	1,276	1,751	1,756	6,641	13,428	4,894	5,528	10,288	1,485	3,671	10,923	3,812	68,933
II.—†CONSTANTLY SICK RATE OF EACH MONTH—													
January	81.7	78.3	47.8	42.3	48.1	41.4	31.3	42.6	50.2	55.0	35.1	56.8	44.5
February	66.1	91.4	44.3	32.2	42.1	37.3	27.1	40.2	50.4	56.4	38.1	53.7	39.5
March	46.2	55.5	32.7	32.4	39.8	30.7	28.8	37.0	40.5	54.6	32.9	54.3	37.0
April	54.7	39.7	40.0	40.4	47.3	37.7	32.2	37.3	46.8	54.1	26.7	51.1	39.1
May	49.8	29.7	41.8	43.2	44.3	49.2	34.4	34.8	47.8	54.7	33.0	60.4	40.8
June	51.1	35.7	41.0	44.6	48.8	59.5	28.6	37.2	43.2	52.4	35.1	66.0	43.7
July	44.2	42.7	44.3	42.9	50.4	53.1	28.4	39.6	42.1	54.7	37.2	66.8	44.3
August	36.4	42.7	59.3	37.1	63.3	51.8	44.0	43.8	53.6	52.6	36.4	60.9	46.8
September	42.5	47.0	57.7	43.2	92.1	62.1	77.2	49.4	49.5	63.3	36.4	59.7	55.6
October	40.4	43.6	52.2	52.5	97.8	86.3	72.1	45.1	69.7	62.6	39.1	71.3	59.3
November	38.5	48.3	44.4	42.0	87.0	81.2	76.9	39.4	65.1	53.2	36.1	89.5	53.1
December	33.8	43.0	40.0	31.9	57.3	64.4	63.4	32.5	54.5	41.4	34.0	92.1	44.2
OF THE YEAR	48.1	48.1	45.4	40.1	56.5	52.5	44.4	40.0	50.6	54.5	35.4	65.3	45.7
III.—ADMISSION RATE OF THE YEAR—													
Influenza	...	...	1.1	6.5	14.4	20.8	3.4	3.0	...	.3	3.0	1.6	6.3
Cholera	...	2.3	...	1.7	.7	2.0	...	.1	...	.3	.5	...	1.3
Small-pox	...	...	.6	3.6	1.4	...	.4	.4	...	...	.2	...	.8
Enteric Fever	1.6	12.0	3.4	17.3	18.3	20.0	9.9	18.5	2.0	14.2	13.6	10.8	14.5
Malaria	93.3	61.7	140.7	136.6	466.9	500.4	407.6	139.0	264.6	54.5	113.3	165.5	244.1
Pyrexia of uncertain origin	82.3	90.2	168.6	134.6	72.2	210.5	73.1	43.7	5.4	42.0	25.5	19.2	73.9
Rheumatic Fever	7.1	.6	5.1	4.1	7.2	7.2	6.3	4.5	2.0	7.9	14.2	10.8	7.2
Tubercle of the lungs	1.6	3.4	2.3	2.0	1.3	1.4	.5	1.1	3.4	.5	1.0	2.1	1.3
Pneumonia	.8	1.7	3.4	6.3	5.6	5.5	2.5	3.9	1.3	1.6	2.8	2.6	3.9
Respiratory Diseases	16.5	9.7	20.5	16.7	24.0	14.1	18.1	17.7	4.0	22.6	13.2	19.4	17.4
Dysentery	21.2	5.1	12.0	16.9	10.9	9.8	15.9	21.6	18.9	25.6	8.6	10.2	14.4
Diarrhœa	2.4	14.3	15.9	10.1	22.6	28.0	21.5	13.1	9.4	11.2	16.1	15.2	17.7
Hepatic { Abscess	.8	.6	...	1.8	1.7	1.6	.5	1.6	1.3	1.4	1.3	7.1	1.7
{ Congestion	3.1	12.0	13.7	4.7	12.4	5.7	8.9	6.3	8.1	9.5	9.6	15.7	8.9
{ Inflammation	112.1	120.5	124.1	68.5	54.8	49.7	65.7	82.6	109.8	117.1	50.3	56.6	69.6
Venereal Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...
ALL CAUSES	683.4	761.3	844.0	714.7	1,148.2	1,254.2	1,006.9	667.8	703.0	761.9	574.8	753.7	829.5
IV.—DEATH RATE OF THE YEAR—													
Cholera	...	2.28	...	1.51	.67	2.04	...	.10	...	.27	...	...	1.10
Small-pox	...	...	...	.15	...	...	...	.10	...	...	...	...	.03
Enteric Fever	.78	3.43	...	3.61	3.87	4.50	3.26	3.21	1.35	1.09	1.56	2.10	2.76
Malaria	1.57	...	...	.30	1.12	.41	1.09	.19	1.35	...	.27	.26	.51
Pyrexia of uncertain origin	...	...	...	...	...	...	...	...	...	...	...	...	...
Heat-stroke	...	...	...	1.51	.67	1.84	.72	.19	...	.27	.09	.26	.54
Circulatory Diseases	.78	...	.57	.30	.30	.20	.18	.10	.67	.82	.09	...	.25
Tubercle of the lungs	.78	...	.57	...	.30	.61	...	.10	.67	...	.27	.52	.23
Pneumonia	...	.57	1.14	.45	.37	.20	.18	.49	...	.27	.64	.26	.39
Respiratory Diseases	...	...	...	.15	.15	.20	.18	...	.67	...	...	...	.09
Dysentery	.78	1.14	.57	.45	.60	...	.54	.68	...	...	.09	.26	.42
Diarrhœa	...	...	...	...	...	...	...	...	...	...	...	.26	.01
Hepatic Abscess	.78	...	...	.90	.82	1.02	.36	.68	1.35	.82	.37	3.41	.80
ALL CAUSES	7.05	9.14	5.69	12.80	11.99	13.49	9.41	7.78	10.10	6.27	5.68	9.44	9.78
V.—PERCENTAGE IN 100 ADMISSIONS—													
Influenza	...	...	.13	.91	1.26	1.66	.34	.45	...	.04	.53	.21	.75
Cholera	...	.30	...	.23	.06	.16	...	.01	...	.04	.10	...	.16
Small-pox	...	...	.07	.51	.12	...	.04	.06	...	...	.03	...	.09
Enteric Fever	.23	1.58	.40	2.42	1.60	1.60	.99	2.77	.29	1.86	2.37	1.43	1.73
Malaria	13.65	8.10	16.67	19.11	40.67	39.90	40.48	20.82	37.64	7.15	19.72	21.96	20.07
Pyrexia of uncertain origin	12.04	11.85	19.97	18.84	6.28	16.78	7.26	6.55	.77	5.51	4.43	2.54	8.81
Rheumatic Fever	1.03	.08	.01	.57	.63	.57	.63	.67	.29	1.04	2.47	1.43	.86
Tubercle of the lungs	.23	.45	.27	.27	.11	.11	.05	.16	.48	.07	.18	.28	.16
Pneumonia	.11	.23	.40	.88	.49	.44	.25	.58	.19	.21	.49	.35	.46
Respiratory Diseases	2.41	1.28	2.43	2.34	2.09	1.12	1.80	2.65	.57	2.97	2.29	2.58	2.07
Dysentery	3.10	.68	1.42	2.36	.95	.78	1.58	3.23	2.68	3.36	1.50	1.36	1.71
Diarrhœa	.34	1.88	1.89	1.41	1.97	2.23	2.14	1.97	1.34	1.47	2.80	2.02	2.10
Hepatic { Abscess	.11	.08	...	.25	.15	.13	.05	.23	.19	.18	.22	.94	.20
{ Congestion	.46	1.58	1.62	.65	1.08	.46	.88	.95	1.15	1.25	1.67	2.09	1.06
{ Inflammation	16.40	15.83	14.71	9.59	4.77	3.96	6.52	12.37	15.61	15.37	8.74	8.84	8.30
Venereal Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...
VI.—PERCENTAGE IN 100 DEATHS—													
Cholera	...	25.0	...	11.8	5.6	15.2	...	1.2	...	4.3	...	...	11.3
Small-pox	...	...	...	1.2	...	...	...	1.2	...	...	...	...	.3
Enteric Fever	11.1	37.5	...	28.2	32.3	33.3	34.6	41.2	13.3	17.4	27.4	22.2	28.2
Malaria	22.2	...	...	2.4	9.3	3.0	11.5	2.5	13.3	...	4.8	2.8	5.2
Pyrexia of uncertain origin	...	...	...	...	...	...	...	...	...	...	...	...	...
Heat-stroke	...	...	...	11.8	5.6	13.6	.77	2.5	...	4.3	1.6	2.8	5.5
Circulatory Diseases	11.1	...	10.0	2.4	2.5	1.5	1.9	1.2	.67	13.0	1.6	...	2.5
Tubercle of the lungs	11.1	...	10.0	...	2.5	4.5	...	1.2	.67	...	4.8	5.6	2.4
Pneumonia	...	6.2	20.0	3.5	3.1	1.5	1.9	6.2	...	4.3	11.3	2.8	4.0
Respiratory Diseases	...	...	...	1.2	1.2	1.5	1.9	...	.67	...	...	...	.9
Dysentery	11.1	12.5	10.0	3.5	5.0	...	5.8	8.8	...	...	1.6	2.8	4.3
Diarrhœa	...	...	...	...	...	...	...	...	...	...	...	2.8	.1
Hepatic Abscess	11.1	...	...	7.1	6.8	7.6	3.8	8.8	13.3	13.0	6.5	36.1	8.2

* Including troops on the line of march and with the Field Forces. For complete detail of diseases, see Table LIII.

† Worked on the aggregates.

EUROPEAN TROOPS, 1908.

TABLE III.

RATIOS of STATIONS, GROUPS, and ARMIES.

For actuals see Table IV.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION RATE.														2. DEATH RATE.							
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Pyrexia of uncertain origin.	Rheumatic Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Venereal Diseases.	ALL CAUSES.	CONSTANTLY SICK RATE.	Syphilis.	Soft Chancre.	Gonorrhoea.
Rangoon and Port Blair	1,276 {	...	...	...	1'6 78	93'3 1'57	82'3 ...	7'1 ...	...	6'3 78	1'6 78	'8 ...	16'5 ...	21'2 78	2'4 ...	'8 78	3'1 ...	112'1 ...	683'4 7'05	48'0	36'8 ...	19'6 ...	55'6 ...
GROUP I.— BURMA COAST AND BAY ISLANDS.	* 1,276 {	...	...	...	1'6 78	93'3 1'57	82'3 ...	7'1 ...	...	6'3 78	1'6 78	'8 ...	16'5 ...	21'2 78	2'4 ...	'8 78	3'1 ...	112'1 ...	683'4 7'05	† 48'1	36'8 ...	19'6 ...	55'6 ...
Thayetmyo	467 {	...	8'6 8'57	...	21'4 6'42	45'0 ...	227'0 ...	...	...	6'4 ...	4'3 ...	...	12'8 ...	4'3 ...	12'8 ...	...	6'4 ...	109'2 ...	1259'1 19'27	51'0	47'1 ...	19'3 ...	42'8 ...
Meiktila	214 {	...	...	...	4'7 ...	32'7 ...	28'0 ...	...	...	9'3 ...	4'7 ...	4'7 ...	4'7 ...	...	14'0 ...	...	56'1 ...	116'8 ...	565'4 ...	52'8	56'1 ...	28'0 ...	32'7 ...
Fort Dufferin (Mandalay).	280 {	...	...	...	10'7 ...	35'7 ...	46'4 ...	...	...	3'6 ...	10'7 ...	...	7'1 ...	17'9 7'14	10'7 ...	...	10'7 ...	142'9 ...	607'1 7'14	58'9	21'4 ...	50'0 ...	71'4 ...
Shwebo	618 {	...	...	...	11'3 4'85	55'0 ...	38'8 ...	1'6 ...	...	9'7 ...	...	3'2 1'62	9'7 ...	3'2 ...	14'6 ...	...	3'2 ...	135'9 1'62	543'7 8'09	43'7	27'5 1'62	38'8 ...	69'6 ...
Bhamo	172 {	...	...	...	...	209'3 ...	52'3 ...	...	...	5'8 ...	...	...	11'6 ...	...	23'3 ...	...	5'8 ...	64'0 ...	686'0 ...	32'4	5'8 ...	17'4 ...	40'7 ...
GROUP II.— BURMA INLAND.	* 1,751 {	...	2'3 2'28	...	12'0 3'43	61'7 ...	90'2 ...	'6 ...	...	7'4 ...	3'4 ...	1'7 57	9'7 ...	5'1 1'14	14'3 ...	'6 ...	12'0 ...	120'5 57	761'3 9'14	† 48'1	33'1 57	32'0 ...	55'4 ...
Forts William, Fulta and Chingri Khal.	1,175 {	1'7 ...	...	...	5'1 ...	142'1 ...	222'1 ...	6'0 ...	...	22'1 85	1'7 ...	1'7 ...	16'2 ...	13'6 85	18'7 ...	...	7'7 ...	166'0 ...	953'2 4'26	50'6	44'3 ...	37'4 ...	84'3 ...
Dum-Dum	320 {	...	...	3'1 ...	...	40'6 ...	3'1 ...	3'1 ...	...	...	3'1 3'13	12'5 6'25	34'4 ...	9'4 ...	3'1 ...	...	21'9 ...	37'5 ...	396'9 12'50	24'0	...	15'6 ...	21'9 ...
Barrackpore	260 {	...	...	...	...	257'7 ...	130'8 ...	5'8 ...	3'8 ...	30'7 ...	3'8 ...	...	23'1 ...	7'7 ...	19'2 ...	...	30'7 ...	42'3 ...	903'8 3'85	48'0	3'8 ...	23'1 ...	15'4 ...
GROUP IV.— BENGAL AND ORISSA.	* 1,756 {	1'1 ...	...	'6 ...	3'4 ...	140'7 ...	168'6 ...	5'1 ...	'6 ...	19'4 57	2'3 57	3'4 1'14	20'5 ...	12'0 57	15'9 ...	...	13'7 ...	124'1 ...	844'0 5'69	† 45'4	30'2 ...	31'3 ...	62'6 ...
B																							
Dinapore	626 {	52'7 ...	...	1'6 ...	8'0 ...	100'6 ...	191'7 ...	...	4'8 1'60	1'6 ...	...	9'6 ...	11'2 ...	17'6 1'60	14'4 ...	3'2 1'60	...	55'9 ...	637'4 12'78	25'1	16'0 ...	14'4 ...	25'5 ...
Benares	131 {	...	...	...	53'4 ...	297'7 ...	183'2 ...	1'3 ...	7'6 ...	...	7'6 ...	...	...	15'3 ...	61'1 ...	...	...	99'2 ...	1106'9 ...	78'2	15'3 ...	15'3 ...	68'7 ...
Allahabad and Fort.	952 {	...	3'2 2'10	1'1 ...	7'4 ...	147'1 ...	347'7 ...	9'5 ...	12'6 2'10	7'4 1'05	2'1 ...	11'6 1'05	31'5 ...	25'2 ...	18'9 ...	1'1 1'05	...	76'7 ...	1118'7 9'45	52'1	15'8 ...	9'5 ...	51'5 ...
Fyzabad	835 {	6'0 ...	...	6'0 ...	19'2 3'59	315'0 1'20	83'8 ...	...	'2 2'40	8'4 1'20	2'4 ...	2'4 ...	26'3 ...	16'8 ...	16'8 ...	1'2 1'20	3'6 1'20	115'0 ...	935'3 10'78	53'7	9'6 ...	10'8 ...	94'6 ...
Sitapur	580 {	1'7 ...	...	1'7 ...	31'0 3'45	139'7 1'72	96'6 ...	...	1'7 ...	34'5 ...	1'7 ...	5'2 ...	13'8 1'72	8'6 1'72	1'7 ...	...	12'1 ...	51'7 ...	703'4 10'34	38'7	12'1 ...	8'6 ...	31'0 ...
Lucknow	2,453 {	1'6 ...	'4 41	5'7 41	14'3 4'48	8'9 ...	60'3 ...	4'1 ...	3'7 1'22	3'7 ...	'4 ...	5'3 41	11'4 ...	22'0 41	2'4 ...	3'3 1'22	5'7 ...	61'1 ...	448'0 13'45	32'9	9'4 ...	8'6 ...	43'2 ...
Cawnpore	1,065 {	...	6'6 6'57	1'9 ...	25'4 7'51	188'7 ...	136'2 ...	...	14'1 1'88	8'5 ...	5'6 ...	6'6 94	15'0 ...	1'9 ...	10'3 ...	...	6'6 ...	54'5 ...	797'2 18'78	40'1	9'4 ...	16'0 ...	29'1 ...
GROUP V.— GANGETIC PLAIN AND CHUTIA NAGPUR.	* 6,641 {	6'5 ...	1'7 1'51	3'6 1'5	17'3 3'61	136'6 30	134'0 ...	4'1 ...	6'3 1'51	8'0 30	2'0 ...	6'3 45	16'7 1'5	16'9 45	10'1 ...	1'8 90	4'7 1'5	68'5 ...	714'7 12'80	† 40'1	11'3 ...	10'8 ...	46'4 ...

* Derived from the aggregates.

† Worked on the aggregates.

EUROPEAN TROOPS, 1908.

TABLE III—continued.

RATIOS of STATIONS, GROUPS, and ARMIES.

For actuals see Table IV.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION RATE.										2. DEATH RATE.											
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Pyrexia of uncertain origin.	Rheumatic Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK RATE.	Syphilis.	Soft Chancre.	Gonorrhœa.
A																							
Shahjehanpur .	342 {	20'5 ...	... ...	5'8 ...	... ...	222'2 2'92	73'1 ...	5'8 ...	2'9 ...	46'8 2'92	5'8 2'92	2'9 ...	14'6 ...	20'5 ...	20'5 ...	2'9 ...	...	58'5 ...	962'0 11'70	49'3	...	14'6 ...	43'9 ...
Bareilly .	1,144 {	22'7 ...	... ...	2'6 ...	3'5 ...	294'6 87	193'2 ...	14'0 ...	3'5 87	10'5 87	9 ...	4'4 ...	42'8 87	6'1 ...	32'3 ...	9 87	16'6 ...	38'5 ...	1,097'9 6'99	48'5	3'5 ...	4'4 ...	30'6 ...
Rurki .	361 {	16'6 ...	... ...	... ...	13'9 ...	326'9 2'77	102'5 ...	5'5 ...	... ...	5'5 ...	... ...	... ...	8'3 ...	2'8 ...	24'9 ...	... ...	5'5 ...	36'0 ...	811'6 2'77	55'7	5'5 ...	... ...	30'5 ...
Meerut .	1,968 {	20'3 ...	... ...	1'5 ...	27'4 6'61	1,054'9 51	5'1 ...	8'1 ...	2'5 ...	6'1 ...	1'0 ...	4'6 51	24'4 ...	18'8 1'02	32'0 ...	2'0 1'02	6'6 ...	81'8 ...	1,713'9 12'70	79'5	21'8 ...	16'3 ...	43'7 ...
Delhi .	224 {	... ...	... ...	13'4 ...	4'5 4'46	1,107'1 13'39	35'7 ...	... ...	... 4'46	13'4 ...	... ...	... ...	13'4 ...	4'5 ...	26'8 ...	... ...	... ...	133'9 ...	1,964'3 22'32	78'3	4'5 ...	80'4 ...	49'1 ...
Ambala .	2,295 {	8'3 ...	4 44	9 ...	8'3 2'61	160'3 87	9'2 ...	1'3 ...	4'4 ...	8'3 44	4 ...	5'7 ...	12'6 44	8'3 1'31	11'8 ...	1'7 44	24'8 ...	41'0 44	662'3 7'41	35'0	12'6 44	3'1 ...	25'3 ...
B																							
Jullundur .	504 {	2'0 ...	... ...	... ...	17'9 1'98	349'2 ...	31'7 ...	11'9 ...	7'9 ...	17'9 ...	... ...	6'0 ...	33'7 ...	4'0 ...	19'8 ...	... ...	7'9 ...	85'3 ...	958'3 5'95	58'6	25'8 ...	13'9 ...	45'6 ...
Ferozepore .	915 {	... ...	... ...	... ...	9'8 1'09	765'0 ...	302'7 ...	6'6 ...	18'6 1'09	10'9 ...	2'2 ...	9'8 ...	31'7 ...	4'4 ...	9'8 ...	1'1 1'09	19'7 ...	48'1 ...	1,753'0 5'46	96'7	1 ...	4'4 ...	26'2 ...
Amritsar .	155 {	... ...	6'5 6'45	... ...	... ...	774'2 6'45	103'2 ...	... ...	... ...	6'5 ...	... ...	... ...	12'9 ...	... ...	12'9 ...	... ...	12'9 ...	58'1 ...	1,471'0 12'90	52'7	6'5 ...	12'9 ...	38'7 ...
Lahore Cantt. and Fort.	930 {	1'1 ...	1'1 1'08	1'1 ...	11'8 3'23	537'6 2'15	109'7 ...	3'2 ...	4'3 3'23	5'4 ...	2'2 1'08	6'5 ...	32'3 ...	7'5 1'08	15'1 ...	2'2 2'15	22'6 ...	55'9 ...	1,253'8 16'13	58'9	18'3 ...	14'0 ...	23'7 ...
Sialkot .	1,290 {	63'6 ...	... ...	... ...	20'9 5'43	527'1 ...	68'2 ...	3'1 ...	5'4 1'55	13'2 78	1'6 ...	6'2 ...	17'8 ...	11'6 ...	39'5 ...	2'3 1'55	6'2 ...	45'7 ...	1,479'1 12'40	59'1	6'2 ...	18'6 ...	20'9 ...
Rawalpindi .	2,917 {	4'1 ...	2'1 1'71	1'7 ...	31'9 6'17	246'5 1'03	29'5 ...	12'7 ...	1'0 34	13'0 34	1'4 69	5'8 1'03	27'8 ...	12'7 69	21'6 ...	2'4 69	6'2 ...	49'7 ...	824'5 19'20	47'6	12'0 ...	9'3 ...	28'5 ...
Campbellpore and Attock.	382 {	... ...	2'6 2'62	... ...	36'6 5'24	397'9 ...	162'3 ...	5'2 ...	7'9 ...	7'9 ...	2'6 ...	10'5 ...	7'9 ...	23'6 ...	13'1 ...	... ...	13'1 ...	57'6 ...	1,081'2 10'47	43'2	10'5 ...	13'1 ...	34'0 ...
GROUP VI.— UPPER SUB- HIMALAYA.	13,428 {	14'4 ...	7 67	1'4 ...	18'3 3'87	466'9 1'12	72'2 ...	7'2 ...	4'3 67	10'9 30	1'3 30	5'6 37	24'0 15	10'9 60	22'6 ...	1'7 82	12'4 ...	54'8 07	1,148'2 11'99	† 56'5	12'9 07	11'1 ...	30'8 ...
A																							
Nowshera .	859 {	3'5 ...	2'3 2'33	... ...	19'8 10'48	397'0 ...	513'4 ...	9'3 ...	33'8 4'66	4'7 ...	1'2 ...	9'3 ...	33'8 ...	5'8 ...	46'6 ...	... ...	15'1 ...	72'2 ...	1,650'8 19'79	59'4	10'5 ...	14'0 ...	47'7 ...
Peshawar .	1,663 {	58'9 ...	4'2 4'21	... ...	31'3 7'21	674'7 1'20	307'3 ...	8'4 ...	10'8 1'80	5'4 60	1'8 1'20	2'4 ...	10'2 60	4'2 ...	34'3 ...	3'0 2'41	3'6 ...	31'9 ...	1,458'2 22'25	61'7	5'4 ...	3'6 ...	22'9 ...
Multan .	715 {	... ...	... ...	... ...	30'8 ...	700'7 ...	54'5 ...	7'0 ...	... 2'80	5'6 ...	1'4 1'40	2'8 1'40	7'0 ...	2'8 ...	15'4 ...	1'4 1'40	1'4 ...	51'7 ...	1,202'8 6'99	46'1	12'6 ...	9'8 ...	29'4 ...
C																							
Hyderabad .	488 {	... ...	2'0 2'05	... ...	... ...	612'7 ...	... ...	6'1 ...	... ...	6'1 ...	2'0 ...	14'3 ...	2'0 ...	28'7 ...	20'5 ...	... ...	2'0 ...	51'2 ...	1,200'8 6'15	40'9	4'1 ...	12'3 ...	34'8 ...
Karachi .	1,168 {	9 ...	... ...	... ...	6'0 86	159'2 ...	33'4 ...	4'3 ...	3'4 ...	3'4 ...	9 ...	5'1 ...	14'6 ...	17'1 ...	16'3 ...	1'7 ...	6'0 ...	56'5 ...	726'9 3'42	44'7	9'4 ...	12'8 ...	34'2 ...
GROUP VII.— N.-W. FRON- TIER, INDUS VALLEY, AND N.-W. RAJ- PUTANA.	4,894 {	20'8 ...	2'0 2'04	... ...	20'0 4'50	500'4 41	210'5 ...	7'2 ...	10'4 1'84	4'9 20	1'4 61	5'5 20	14'1 20	9'8 ...	28'0 ...	1'6 1'02	5'7 ...	49'7 ...	1,254'2 13'49	† 52'5	8'2 ...	9'4 ...	32'1 ...
B																							
Neemuch .	286 {	... ...	... ...	3'5 ...	21'0 6'99	283'2 ...	... ...	3'5 ...	... ...	28'0 ...	... ...	... ...	17'5 ...	10'5 ...	52'4 ...	3'5 ...	7'0 ...	83'9 ...	898'6 13'99	44'6	7'0 ...	45'5 ...	31'5 ...
Nasirabad .	808 {	... ...	... ...	1'2 ...	5'0 2'48	529'7 3'71	2'5 ...	11'1 ...	... ...	6'2 ...	... ...	3'7 ...	22'3 ...	11'1 ...	22'3 ...	... ...	7'4 ...	101'5 ...	1,085'4 11'14	53'0	5'0 ...	34'7 ...	61'9 ...
Muttra .	460 {	10'9 ...	... ...	... ...	4'3 4'35	60'9 ...	332'6 ...	4'3 ...	2'2 ...	4'3 ...	... ...	... ...	13'0 2'17	4'3 ...	13'0 ...	... ...	10'9 ...	32'6 ...	771'7 6'52	25'2	... ...	6'5 ...	26'1 ...
Agra and Fatehgarh.	915 {	15'3 ...	... ...	... ...	9'8 3'28	867'8 2'19	122'4 ...	6'6 ...	8'7 ...	7'7 ...	3'3 ...	2'2 ...	30'6 ...	23'0 1'09	16'4 ...	1'1 ...	9'8 ...	40'4 ...	1,751'9 9'84	71'3	5'5 ...	7'7 ...	27'3 ...

* Derived from the aggregates.

† Worked on the aggregates.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION RATE.										2. DEATH RATE.											
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Pyrexia of uncertain origin.	Rheumatic Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Venereal Diseases.	ALL CAUSES.	CONSTANTLY SICK RATE.	Syphilis.	Soft Chancre.	Gonorrhoea.
Jhansi . . .	1,017 {	...	...	...	26'5 8'85	254'7 '98	66'9	7'9	3'9 1'97	3'9	...	3'9 '98	6'9	14'7 '98	22'6	...	2'9	84'6	747'3 16'72	32'1	3'9	7'9	72'8
Nowgong . . .	329 {	...	...	...	...	234'0	79'0	9'1	6'1 3'04	12'2 3'04	...	12'2	21'3	6'1	9'1	...	6'1	60'8	872'3 9'12	41'7	30'4	3'0	27'4
Mhow and Indore	1,713 {	...	...	...	4'1	342'1	25'1	3'5	4'7 '58	8'2	...	6	16'9	21'0 '58	22'8	6	12'8	57'8	833'0 4'09	39'1	11'7	8'8	37'4
GROUP VIII.— SOUTH-EAST RAJPUTAN A, CENTRAL NDIA AND GUJARAT.	* 5,528 {	3'4	...	4	9'9	407'6	73'1	6'3	4'2	8'0	5	2'5	18'1	15'9	21'5	5	8'9	65'7	1,006'9	† 44'4	8'1	13'6	44'0
		...	...	...	3'26	1'09	...	...	72	18	...	18	18	54	...	36	...	...	9'41		...	...	...
A																							
Saugor . . .	283 {	7'1	...	...	14'1 3'53	268'6	53'0	...	...	3'5	3'5	3'5	7'1	56'5	3'5	...	14'1	70'7	756'2 7'07	44'4	38'9	14'1	17'7
Jubbulpore . . .	1,013 {	16'8	...	2'0	34'6 3'95	486'7 '99	42'4	3'9	...	3'0	3'0 '99	6'9	18'8	42'4 6	22'7	3'0 '99	9'9	76'0	1,174'7 12'83	58'8	10'9	21'7	43'4
Kampti . . .	988 {	...	...	1'0	11'1 3'04	252'0	48'6	5'1	1'0	2'0	1'0	1'0	2'0	14'2	17'2	...	2'0	58'7	744'9 4'05	33'7	11'1	17'2	30'4
B		6	3	...	25'9 5'17	13'9	54'6	5'5	1'0 32	5'5	1'0	1	16'5	24'2 97	6'1	1'3 32	4'8	97'0	571'8 9'37	40'7	16'8	28'4	51'7
Secunderabad . . .	3,094 {	...	...	1'0	14'6 3'88	40'8	43'7	1'0	...	1'0	...	1'9	11'7	3'9	11'7	...	4'9	59'2	465'0 5'83	25'8	9'7	21'4	28'2
Belgaum . . .	1,030 {	...	...	...	9'8 52	148'6	43'0	5'2	5	11'9 52	1'6	3'6 52	11'4	11'9	17'1	3'6 55	6'7 52	89'1	585'2 4'66	39'3	10'4	25'4	53'3
Poona . . .	1,931 {	...	...	...	10'1 1'84	97'4	9'2	3'7	...	1'8	...	11'0	36'8	39'5 92	1'8	1'8 92	10'1	68'9	609'4 7'35	31'5	20'2	16'5	32'2
Kirkee . . .	1,088 {	...	...	...	17'4 2'32	155'6 1'16	43'0	5'8	...	5'8	...	7'0 48	39'5	4'6	32'5	...	5'8	101'0	800'2 10'45	50'2	13'9	47'6	39'5
Ahmednagar . . .	861 {	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP IX.— DECCAN.	* 10,288 {	3'0	1'1 1'10	4 1'10	18'5 3'21	139'0 19	43'7	4'5	5 19	5'2 1'10	1'1 1'10	3'9 49	17'7	21'6 68	13'1	1'6 68	6'3 1'10	82'6	667'8 7'78	† 40'0	14'5	25'4	42'8
Colaba and Khan- dalla.	1,152 {	...	...	...	1'7 87	340'3 1'74	4'3	2'6	2'6	11'3	4'3 87	1'7	2'6 87	23'4	11'3	1'7 1'74	8'7	105'0	777'8 9'55	4	26'0	36'4	42'5
Cannanore, Cali- cut and Mala- puram.	332 {	...	...	...	3'0 3'01	3'0	9'0	...	...	15'1 3'01	...	...	9'0	3'0	3'0	...	6'0	126'5	445'8 12'05	37'4	12'0	33'1	81'3
GROUP X.— WESTERN COAST.	* 1,485 {	...	...	...	2'0 1'35	264'6 1'35	5'4	2'0	2'0	12'1 67	3'4 67	1'3	4'0 67	18'9	9'4	1'3 1'35	8'1	109'8	703'0 10'10	† 50'6	22'9	35'7	51'2
A		...	2'1 2'10	...	...	11'4	8'4	6'3	6'3	6'3	...	...	46'1	29'4	...	2'1	10'5	102'7	729'6 12'58	44'9	18'9	10'5	73'4
Bellary . . .	477 {	...	...	...	19'0 1'77	41'6	27'0	8'4	4 44	6'2 89	...	1'3	18'6	20'4	15'5	1'3 89	7'5	111'6	701'1 4'87	49'7	36'3	23'0	52'3
Bangalore . . .	2,258 {	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
B		...	...	...	3'9	35'4	59'1	...	...	11'8	...	...	15'7	15'7	19'7	...	11'8	122'0	830'7	29'4	27'6	19'7	74'8
St. Thomas' Mount.	254 {	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Madras and Poonamallee.	683 {	1'5	...	...	11'7	29'3	103'3	10'2	2'9	11'7 1'46	2'9	4'4 1'46	22'0	43'9	1'5	1'5 1'46	14'6	143'5	959'0 8'78	86'6	30'7	35'1	77'6
GROUP XI.— SOUTHERN INDIA.	* 3,671 {	3	3 27	...	14'2 1'09	54'5	42'0	7'9	1'6 27	7'6 82	5	1'6 27	22'6	25'6	11'2	1'4 82	9'5	117'1	761'9 6'27	† 54'5	32'4	23'4	61'3

* Derived from the aggregates.

† Worked on the aggregates.

EUROPEAN TROOPS, 1908.

TABLE III—continued.

RATIOS of STATIONS, GROUPS, and ARMIES.

For actuals see Table IV.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION RATE.														2. DEATH RATE.							
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Pyrexia of uncertain origin.	Rheumatic Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK RATE.	Syphilis.	Soft Chancre.	Gonorrhoea.
Ranikhet and Chaubuttia. }	1,639 {	...	...	...	14'0 3'05	65'9	14'0	10'4	...	15'3	...	1'8 6'1	13'4	17'7	18'3	1'2	8'5	49'4	599'8 4'88	34'4	7'3	9'2	32'9
Chakrata .	1,398 {	22'2	...	1'4	4'3	168'1	5'7	6'4	...	11'4	7	2'1 1'43	13'6	10'0	17'9	...	7'2	57'2	553'6 7'87	31'7	13'6	6'4	37'2
Lebong .	603 {	...	...	...	...	33'2	48'1	8'3	...	10'0	3'3	...	21'6	5'0	54'7	1'7	1'7	64'7	562'2	38'8	33'2	6'6	24'9
Solon .	343 {	...	...	...	20'4	67'1	11'7	...	...	5'8	2'9	5'8 2'92	20'4	11'7 2'92	...	5'8	5'8	29'2	478'1 5'83	27'4	5'8	8'7	14'6
Dagshai .	707 {	...	...	...	2'8 1'41	31'1	70'7	19'8	...	11'3 1'41	1'4	11'3	11'3	5'7	1'4	2'8	7'1	94'8	585'6 4'24	37'8	22'6	46'7	25'5
Subathu .	470 {	2'1	...	...	48'9 6'38	129'8	2'1	6'4	...	8'5	2'1	2'1	2'1	...	6'4	2'1	85'1	66'0	638'3 8'51	51'9	23'4	10'6	31'9
Jutogh .	232 {	...	...	...	4'3	103'4	4'3	...	...	43'1	...	...	21'6	...	8'6	...	...	12'9	495'7	32'2	12'9	...	...
Kuldana .	340 {	...	...	...	5'9	132'4	20'6	26'5	...	8'8	2'9 2'94	2'9	20'6	11'8	...	...	14'7	47'1	585'3 5'88	32'0	20'6	5'9	20'6
Kalabagh and Baragali. }	85 {	...	35'3	...	11'8	23'5	47'1	11'8	...	47'1	...	...	35'3	11'8	11'8	11'8 11'76	11'8	35'3	600'0 11'76	22'0	23'5	...	11'8
Camp Gharial. }	644 {	...	...	...	24'8 1'55	51'2	48'1	3'1	...	3'1	...	...	7'8	...	21'7	...	1'6	31'1	638'2 1'55	21'6	9'3	6'2	15'5
Camp Barian and Khairagali. }	561 {	...	3'6	...	14'3 1'78	82'0	7'1	12'5	...	21'4	1'8 1'78	1'8	5'3	17'8	25'0	...	16'0	42'8 1'78	442'1 8'91	39'4	12'5 1'78	10'7	19'6
Khan Spur .	352 {	...	2'8	...	8'5	187'5	17'0	11'4	...	8'5	...	5'7	22'7	8'5	31'2	...	5'7	31'2	627'8	31'1	8'5	14'2	8'5
Cherat .	496 {	2'0	...	...	30'2 2'02	302'4	70'6	8'1	10'1	6'0	4'0	6'0 2'02	2'0	18'1	44'4	...	12'1	18'1	957'7 6'05	64'0	6'0	4'0	8'1
Quetta .	2,347 {	...	...	...	17'9 2'13	93'3	11'1	30'3	...	4'7	4 43	2'6 8'5	15'3	3'8	8'1	1'3 8'5	3'4	33'7	429'9 6'82	25'6	11'5	4'3	17'9
Maymyo .	706 {	...	...	...	...	260'6 4'25	69'4	12'7	...	5'7	...	1'4	8'5	5'7	1'4	2'8 1'42	1'4	107'6	815'9 8'50	61'0	29'7	41'1	36'8
GROUP XII a.—HILL STATIONS. }	10,923 {	3'0	5	2	13'6 1'56	113'3 27	25'5	14'2	5 09	10'3 09	1'0 27	2'8 64	13'2	8'6 09	16'1	1'3 37	9'6	50'3 09	574'8 5'68	† 35'4	14'6 09	11'6	24'1
Darjeeling .	346 {	...	...	...	2'9	66'5	37'6	2'9	...	5'8	2'9	2'9	31'8	31'8 2'39	11'6	8'7 2'89	8'7	86'7	647'4 8'67	54'2	37'6	8'7	40'5
Naini Tal .	175 {	11'4	...	...	17'1 5'71	182'9	5'7	...	...	5'7	...	5'7	22'9	...	11'4	11'4	11'4	68'6	525'7 17'14	50'2	22'9	17'1	28'6
Landour .	205 {	...	...	...	...	473'2	78'0	...	4'9	9'8	...	...	4'9	14'6	19'5	14'6 14'63	53'7	43'9	1,161'0 14'63	62'4	9'8	19'5	14'6
Kasauli .	472 {	4'2	...	...	8'5	220'3	23'3	4'2	...	12'7	6'4 2'12	...	19'1	2'1	21'2	6'4 6'36	16'9	31'8	692'8 14'83	62'2	4'2	2'1	25'4
Dalhousie .	834 {	...	...	...	16'8	137'9	15'6	9'6	...	4'8	1'2 1'20	6'0 1'20	4'8	2'4	2'4	1'2 1'20	4'8	68'3	442'4 3'60	42'9	46'8	3'6	18'0
Murree, and Lower and Upper Topas. }	338 {	3'0	...	...	41'4 8'88	177'5	29'6	8'9	...	20'7	3'0	8'9	8'9	3'0	8'9 2'96	11'8 2'96	11'8	23'7	606'5 20'71	120'6	8'9	8'9	5'9
Mount Abu .	139 {	...	...	...	7'2	345'3	...	...	...	14'4	...	...	7'2	14'4	21'6	14'4 7'19	28'8	21'6	805'8 7'19	33'7	7'2	7'2	7'2
Pachmarhi .	154 {	...	...	...	...	461'0 6'49	13'0	13'0	...	13'0	...	...	13'0	51'9	64'9	26'0	32'5	64'9	1,227'3 6'49	61'9	19'5	6'5	39'0

* Derived from the aggregates.

† Worked on the aggregates.

STATIONS, GROUPS AND ARMIES.	Average annual strength.	1. ADMISSION RATE.					2. DEATH RATE.					3. CONSTANTLY SICK RATE.											
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Pyrexia of uncertain origin.	Rheumatic Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Venereal Diseases.	ALL CAUSES.	CONSTANTLY SICK RATE.	Syphilis.	Soft Chancre.	Gonorrhoea.
Purandhar .	105 {	...	...	...	57'1 28'57	161'9 ...	95 ...	95 ...	...	93'2 ...	...	...	57'1 ...	28'6 ...	...	...	9'5 ...	5 ...	790'5 28'57	87'4	9'5...	...	...
Wellington .	1,045 {	1'0 ...	...	...	2'9 '96	61'2 ...	3'8 ...	23'0 ...	1'0 ...	19'1 ...	9 ...	...	31'6 ...	7'7 ...	19'1 ...	4'8 2'87	1'72 ...	104'3 ...	989'5 4'78	75'2	30'6 ...	28'7 ...	45'0 ...
GROUP XIIb.— Hill Convalescent Depôts and Sanitaria.	* 3,812 {	1'6 ...	...	...	10'8 2'10	165'5 '26	19'2 ...	10'8 ...	'5 '26	14'7 ...	2'1 '52	2'6 '26	19'4 ..	10'2 '26	15'2 '26	7'1 3'41	15'7 ...	66'6 ...	753'7 9'44	† 65'3	26'2 ...	12'9 ...	27'5 ...
Troops, march- ing, India.	1,603 {	'6 ...	...	'6 ...	11'2 '62	200'2 ...	26'8 ...	3'7 ...	3'7 ...	1'2 ...	...	5'6 ...	6'2 ...	19'3 ...	25'0 ...	'6 ...	1'2 ...	66'1 ...	585'2 1'87	2'5	11'2 ...	16'2 ...	38'7 ...
Bazar Valley } Field Force. }	97 {	...	...	...	...	103'1 ...	...	10'3 ...	...	...	...	20'6 ...	10'3 ...	...	72'2 ...	...	...	...	463'9 10'31	1'1	...	...	...
Mohmand Field Force . . .	314 {	3'2 ..	159'2 130'57	...	9'6 6'37	162'4 ...	60'5 ...	...	...	22'3 ..	...	3'2 ...	9'6 ...	19'1 ...	130'6 ...	...	...	47'8 ...	1,668'8 159'24	29'5	6'4 ..	9'6 ...	31'8 ...
Deolali Depôt .	367 {	...	...	...	...	340'6 ...	...	2'7 ...	...	5'4 ...	...	...	10'9 ...	8'2 ...	2'7 ...	...	...	114'4 ...	689'4 ...	42'6	32'7 ...	40'9 ...	40'9 ...
EXTRA INDIA.																							
Aden . . .	1,100 {	...	...	...	1'8 ...	65'3 ...	195'5 ...	3'6 ...	...	4'5 '91	3'6 ...	...	14'5 ...	21'8 1'82	20'0 ...	1'8 '91	10'9 ..	20'9 ...	629'1 4'55	40'7	2'7 ...	8'2 ...	10'0 ...
India .	* 68,933 {	6'3 ... '2	1'3 1'10 0	'8 '03 '1	14'5 2'76 2'7	244'1 '51 8'3	73'9 ... 2'4	7'2 ... '6	2'9 '54 '1	8'8 '25 '8	1'3 '23 '3	3'9 '39 '4	17'4 '09 '9	14'4 '42 1'1	17'7 '01 '5	1'7 '80 '3	8'9 '03 '6	69'6 '04 8'8	839'5 9'78 45'7	† 45'7	15'8 '04 2'4	16'1 ... 1'7	37'8 ... 4'8
NORTHERN ARMY	* 36,676 {	10'8 ...	1'0 '76	1'3 '03	16'6 3'22	312'9 '57	100'4 ...	7'0 ...	4'4 '79	10'4 '25	1'6 '33	4'7 '40	18'8 '14	11'3 '41	19'3 '03	1'8 '87	10'5 '03	58'3 '05	939'5 10'72	† 49'0	13'8 '05	11'3 ...	33'1 ...
SOUTHERN ARMY	* 30,243 {	1'1 ...	'2 '23	'2 '03	12'3 2'28	164'2 '46	44'7 ...	7'8 ...	1'1 '26	7'2 '26	1'2 '13	2'8 '33	16'4 '03	17'9 '46	13'9 ...	1'6 '76	7'6 '03	84'1 '03	724'4 7'51	† 44'3	18'5 '03	21'9 ...	43'6 ...
Lucknow† . .	2,453	'1	'0	'7	2'1	1'7	2'0	'3	'1	'6	'1	'5	'5	1'8	'1	'4	'4	8'3	32'9	32'9	1'2	'9	6'2
Ambala† . . .	2,295	'4	...	'1	1'5	5'7	'6	'3	'1	'9	'5	'6	'6	'5	'3	'2	1'4	5'4	35'0	35'0	'3	1'7	3'5
Rawalpindi†	2,917	'0	'0	'1	5'6	9'3	1'3	'6	'2	1'2	'2	'5	1'1	1'1	'8	'4	'5	6'6	47'6	47'6	2'2	1'2	3'1
Secunderabad†	3,094	'0	...	...	4'4	'6	2'6	'5	'0	'9	'2	'1	'8	1'7	'2	'4	'3	10'8	40'7	40'7	2'4	2'4	6'0
Bangalore†	2,258	...	...	...	3'5	2'1	1'4	'8	'0	'8	...	'2	1'4	1'4	'5	'1	'5	15'6	49'7	49'7	5'7	2'5	7'4
Quetta† . . .	2,347	...	...	...	2'7	3'1	'6	1'9	...	'3	'2	'3	'8	'6	'3	'2	'2	3'7	25'6	25'6	1'4	'3	2'0

* Derived from the aggregates.

† Worked on the aggregates.

‡ Constantly sick rate per 1,000 by diseases at the largest stations.

EUROPEAN TROOPS, 1908.

TABLE IV.

ACTUALS of STATIONS, GROUPS, and ARMIES on which the Ratios in Tables I-III have been calculated.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSIONS.												2. DEATHS.				3. CONSTANTLY SICK.									
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Pyrexia of uncertain origin.	Rheumatic Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Veneral Diseases.	ALL CAUSES.	Syphilis.	Soft Chancre.	Gonorrhœa.	Tania.	Other Entozoa.			
Rangoon and Port Blair	1,276 {	...	...	...	2	119	105	9	...	8	2	1	21	27	3	1	4	143	872	47	25	71	1	...
		...	...	...	1	2	...	...	...	1	1	...	...	1	...	...	...	...	9	...	...	...	...	...
		...	...	...	'05	5'21	4'29	1'00	...	1'24	'50	'08	1'14	1'49	'05	'02	'37	18'69	61'30	6'70	3'43	8'56	'02	...
GROUP I.—BURMA COAST AND BAY ISLANDS.	1,276 {	...	...	...	2	119	105	9	...	8	2	1	21	27	3	1	4	143	872	47	25	71	1	...
		...	...	...	1	2	...	...	...	1	1	...	...	1	...	...	...	...	9	...	...	...	...	...
		...	...	...	'05	5'21	4'29	1'00	...	1'24	'50	'08	1'14	1'49	'05	'02	'37	18'69	61'30	6'70	3'43	8'56	'02	...
Thayetmyo	467 {	...	4	...	10	21	106	...	...	3	2	...	6	2	6	...	3	51	588	22	9	20	...	...	
		...	4	...	3	...	...	...	...	...	...	...	...	...	...	...	...	9	...	...	...	...	...
		...	'03	...	1'62	'46	2'30	'02	...	'06	'22	...	'16	'08	'03	...	'19	5'13	23'83	1'90	'95	2'28	...	...	
Meiktila	214 {	...	...	...	1	7	6	...	...	2	1	1	1	...	3	...	12	25	121	12	6	7	2	...
				
		...	...	...	'21	'70	'35	...	...	'09	'19	'03	'26	20	'09	...	1'10	4'84	11'30	3'32	'64	'88	'04	...
Fort Dufferin (Mandalay)	280 {	...	...	...	3	10	13	...	...	1	3	...	2	5	3	1	3	40	170	6	14	20	...	...	
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...
		...	...	...	'48	'55	'42	'04	...	'14	'31	...	'32	'34	'10	'01	'32	7'13	16'50	1'40	2'41	3'32	'01	...
Shwebo	618 {	...	...	...	7	34	24	1	...	6	...	2	6	2	...	...	2	84	336	17	24	43	2	...
		...	...	...	3	...	...	...	...	...	...	1	...	...	...	...	...	1	5	...	...	...	...	...
		...	...	...	1'35	'39	'77	'04	...	'64	...	'09	'62	'19	'7	'04	'51	10'48	26'99	2'65	3'03	5'80	'03	...
Bhamo	172 {	...	...	...	...	36	9	...	...	1	...	...	2	...	4	...	1	11	118	...	3	7	...	...	
		...	...	...	...	1'51	'10	...	...	'07	...	...	'05	...	'08	...	'02	1'29	5'58	'05	'27	'94	...	...	
GROUP II.—BURMA INLAND.	1,751* {	...	4	...	21	108	158	1	...	13	6	3	17	9	25	1	21	211	1,333	58	56	97	4	...			
		...	4	...	6	...	...	...	...	...	...	1	...	2	...	...	...	10	...	...	...	...	...	...
		...	'03	...	3'66	4'61	3'94	'10	...	1'00	'72	'17	1'41	'81	1'11	'05	2'14	28'87	84'20	9'35	6'30	13'22	'03	...			
Forts William, Fulta and Chingrikhal.	1,175 {	2	...	...	6	167	261	7	...	26	2	2	19	16	22	...	9	195	1,120	52	44	99	...	...	
		'06	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	5	...	...	...	...	...
		...	...	...	1'42	5'36	7'47	'79	...	1'97	'33	'19	'66	1'23	'57	...	1'05	21'51	59'45	5'22	4'21	12'03	...	...	
Dum-Dum	320 {	...	...	1	...	13	1	1	...	...	1	4	11	3	1	...	7	12	127	...	5	7	...	...	
		...	...	'04	...	'57	'02	'01	...	...	1	2	...	...	...	...	...	...	4	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	'20	'34	'67	'21	'14	...	'75	'79	7'68	...	'25	'54	...	...	
Barrackpore	260 {	...	...	...	...	67	34	1	1	8	1	...	6	2	5	...	8	11	235	1	6	4	...	...	
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
		...	...	...	...	2'73	1'35	'09	'02	'73	'16	...	'49	'64	'16	'09	'19	1'32	12'49	'09	'31	'92	...	...	
GROUP IV.—BENGAL AND ORISSA.	1,756* {	2	...	1	6	247	296	9	1	34	4	6	36	21	28	...	24	218	1,432	53	55	110	...	...	
		'05	...	'04	...	...	...	...	...	...	...	...	...	1	...	...	...	...	10	...	...	...	...	...
		...	...	...	1'44	8'66	8'84	'89	'02	2'70	'69	'53	1'82	2'08	'87	'09	1'99	23'62	79'62	5'31	4'77	13'54	...	...	
B																											
Dinapore	626 {	33	...	1	5	63	120	...	3	1	...	6	7	11	9	2	...	35	399	10	9	16	...	...	
		'82	...	'09	...	...	...	...	1	...	...	...	...	1	...	1	...	...	8	...	...	...	...	...
		...	...	...	1'11	2'00	2'41	...	'23	'09	...	'29	'26	'72	'24	'12	...	3'16	15'69	'95	'78	1'42	...	...	
Benares	131 {	...	...	...	7	39	24	2	1	...	1	...	...	2	8	...	...	13	145	2	2	9	...	...	
				
		...	...	...	3'26	1'54	1'08	'05	'10	...	'14	'02	...	'31	'17	...	...	1'29	10'24	'23	'20	'86	...	...	
Allahabad and Fort.	554 {	...	3	1	7	140	331	9	12	7	2	11	30	24	18	1	...	73	1,065	15	9	49	1	1			
		...	2	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	9	...	...	...	...	...
		...	'09	'12	1'42	4'30	8'97	'80	'37	'66	'70	'99	1'23	1'57	'73	'34	'12	7'12	49'61	1'25	1'15	4'72	'02	'05			
Fyzabad	835 {	5	...	5	16	263	70	...	1	7	2	2	22	14	14	1	3	96	781	8	9	79	...	...	
		...	...	...	3	...	...	...	2	...	...	...	...	...	...	...	...	...	9	...	...	...	...	...
		10	...	'59	1'75	8'16	3'01	...	'02	'70	'36	'14	2'44	1'51	'42	'28	'11	13'63	44'86	1'46	'66	11'51	...	...	
Sitapur	580 {	1	...	1	18	81	56	...	1	20	1	3	8	5	1	...	7	30	408	7	5	18	...	1			
		'02	...	'03	2	...	...	...	...	...	...	...	...	...	...	...	...	...	6	...	...	...	...	...
		...	...	...	2'65	2'77	2'49	...	'12	1'91	'72	'07	28	'20	'02	...	'20	3'73	22'42	'60	'45	2'68	...	'16
Lucknow	2,453 {	4	1	14	35	120	140	10	9	9	1	13	28	54	6	8	14	150	1,090	23	21	106	1	...			
		'16	'06	1'60	5'25	4'19	4'91	'85	'35	1'35	'33	1'24	1'31	4'33	'17	1'09	'86	20'43	80'02	2'98	2'31	15'14	'02	...			
				
Cawnpore	1,065 {	...	7	2	27	201	145	6	15	9	6	7	16	2	11	...	7	58	849	10	17	31	1	...			
		...	...	...	8	...	...	...	2	...	...	...	...	...	...	...	...	...	20	...	...	...	...	...
		...	'04	'16	4'20	6'31	3'60	'21	'43	1'20	1'24	'41	1'24	'13	'26	...	'55	5'37	42'67	'87	2'31	2'69	'02	...			
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR.	6,641* {	43	11	24	115	907	894	27	42	53	13	42	111	112	67	12	31	455	4,746	75	72	308	3	2			
		...	10	1	24	...	...	...	1	2	...	...	...	3	...	6	1</							

* Derived from the aggregates.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSIONS.										2. DEATHS.					3. CONSTANTLY SICK.									
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Pyrexia of uncertain origin.	Rheumatic Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Veneral Diseases.	ALL CAUSES.	Syphilis.	Soft Chancre.	Gonorrhoea.	Tænia.	Other Entozoa.		
A																										
Shahjehanpur	342 {	7 39	...	2 28	...	76 2'30	25 77	2 36	1 05	16 1'56	2 12	1 02	5 28	7 70	7 12	1 11	...	20 2'84	329 16'85	...	5 75	15 1'90	4 07	...		
Bareilly	1,144 {	25 92	...	3 29	4 92	337 11'36	221 7'23	16 1'02	4 11	12 1'88	1 56	5 38	49 2'16	7 68	37 1'10	1 29	19 1'00	44 6'78	1,256 55'49	...	4 32	5 26	35 6'20	3 06	0'5	
Rurki	361 {	6 38	...	...	5 3'43	118 6'09	37 95	2 25	...	2 03	...	...	3 47	1 44	9 15	...	2 06	13 1'94	293 20'10	...	2 20	...	11 1'60	...	...
Meerut	1,968 {	40 1'25	...	3 49	54 7'84	2,076 54'85	10 50	16 96	5 13	12 1'25	2 42	9 95	48 66	37 2'24	63 1'16	4 63	13 1'48	161 19'27	3,373 156'46	...	43 3'83	32 49	86 14'95	4 14	...	
Delhi	224 {	...	...	3 22	1 04	248 6'81	8 24	...	...	3 18	...	...	...	...	6 23	...	...	30 4'63	440 17'53	...	1 82	18 2'33	11 1'48	...	...
Ambala	2,295 {	19 85	1 ...	2 22	19 3'36	368 13'05	21 1'41	3 59	10 1'9	19 2'01	1 08	13 1'37	29 1'43	19 1'11	27 65	4 43	57 3'29	94 12'49	1,520 80'26	...	29 63	7 3'83	58 8'03	14 3'8	1 16	
B																										
Jullundur	504 {	1 04	...	...	9 2'01	176 7'40	16 48	6 30	4 25	9 86	...	3 63	17 75	...	10 28	...	4 11	43 6'37	483 29'52	...	13 2'46	7 72	23 3'19	...	...
Ferozepore	915 {	...	...	...	9 1'55	700 40'41	277 8'22	6 63	17 1'70	10 79	2 68	9 1'02	29 1'16	4 43	9 24	1 04	18 83	44 7'37	1,604 88'47	...	16 2'95	4 45	24 3'96	1 02	...
Amritsar	155 {	...	1 01	...	...	120 3'02	16 53	...	...	1 05	...	...	...	...	2 04	...	2 04	9 92	228 8'17	...	1 06	2 12	6 74	...	...
Lahore Cantonment and Fort.	930 {	1 03	1 ...	1 11	11 3'47	500 17'47	102 3'72	3 79	4 05	5 25	2 09	6 55	30 83	7 35	14 51	2 13	21 1'01	52 8'00	1,166 54'81	...	17 2'84	13 1'39	22 3'77	4 17	...	
Sialkot	1,290 {	82 2'01	...	...	27 5'03	680 16'62	88 2'77	4 41	7 1'11	17 1'15	2 90	8 60	23 72	15 94	51 1'05	3 45	8 50	59 6'73	1,908 76'18	...	8 83	24 2'92	27 2'98	7 09	...
Rawalpindi	2,917 {	12 13	6 10	5 36	93 16'45	719 27'12	86 3'78	57 1'83	3 51	38 3'58	4 53	17 1'37	81 3'32	37 3'23	63 2'40	7 1'30	18 1'39	145 19'25	2,405 138'76	...	35 6'52	27 3'60	83 9'13	10 27	...	
Campbellpore and Attock	382 {	...	1 02	...	14 2'41	152 4'25	62 1'52	2 08	3 26	3 08	1 19	4 37	3 10	9 40	5 13	...	5 14	22 2'56	413 16'49	...	4 29	5 55	13 1'72	...	...
GROUP VI.—UPPER SUB-HIMALAYA.	* 13,428 {	194 6'00	10 13	19 1'97	246 47'02	6,270 210'75	969 32'12	97 7'22	58 3'39	147 12'81	17 4'57	75 7'20	322 13'03	146 10'63	303 8'05	23 3'38	157 9'85	736 99'15	15,418 759'09	...	173 21'95	149 17'55	414 59'65	47 1'20	2 21	
A																										
Nowshera	859 {	3 11	2 01	...	17 2'13	341 11'25	441 10'26	8 78	29 64	4 17	1 04	8 55	29 1'27	5 77	40 93	...	13 51	62 6'03	1,418 50'99	...	9 87	12 1'22	41 3'94	...	1 05	
Peshawar	1,663 {	98 2'30	7 74	...	52 10'43	1,122 40'11	511 11'97	14 1'13	18 64	9 99	3 29	4 51	17 70	7 83	57 1'36	5 33	6 37	53 6'51	2,425 100'90	...	9 75	6 29	38 5'47	12 38	...	
Multan	715 {	...	...	...	22 3'90	501 11'13	39 97	5 32	...	4 09	1 48	2 05	5 24	2 21	11 22	1 04	1 07	37 4'18	860 32'99	...	9 90	7 67	21 2'61	1 02	...
C																										
Hyderabad	488 {	...	1 ...	...	...	299 7'60	...	3 11	...	3 29	1 08	7 44	1 09	14 48	10 18	...	1 04	25 3'25	586 19'94	...	2 27	6 69	17 2'29	2 03	...
Karachi	1,168 {	1 04	...	...	7 1'04	186 7'18	39 1'10	5 43	4 24	4 78	1 30	6 1'01	17 90	20 84	19 63	2 42	7 37	66 11'35	849 52'20	...	11 2'22	15 2'83	40 6'30	...	...
GROUP VII.—N.-W. FRONTIER, VALLEY, AND RAJPUTANA.	4,894* {	102 2'45	10 75	...	98 17'50	2,449 77'27	1,030 24'30	35 2'77	51 1'52	24 2'32	7 1'19	27 2'56	69 3'20	48 3'13	137 3'32	8 91	28 1'36	243 31'32	6,138 257'02	...	40 5'01	46 5'70	157 20'61	15 45	1 05	

* Derived from the aggregates.

EUROPEAN TROOPS, 1908.

TABLE IV—continued.

ACTUALS of STATIONS, GROUPS, and ARMIES, on which the Ratios in Tables I—III have been calculated.

STATIONS AND GROUPS.	Aver age annual strength.	1. ADMISSIONS.											2. DEATHS.				3. CONSTANTLY SICK.									
		Influenza.	Cholera.	Small pox.	Enteric Fever.	Malaria.	Pyrexia of uncertain origin.	Rheumatic Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Veneral Diseases.	ALL CAUSES.	Syphilis.	Soft Chancre.	Gonorrhœa.	Tenia.	Other Entozoa.		
B																										
Neemuch	286 {	...	...	1	6	81	...	1	...	8	...	...	5	3	15	1	2	24	257	2	13	9	1	...
		...	...	14	1'30	2'45	...	0'2	...	28	...	...	13	13	44	0'2	11	3'04	12'76	43	1'36	1'25	0'07	...
Nasirabad	808 {	...	...	1	4	428	2	9	...	5	...	3	18	9	18	...	6	82	877	4	28	50	2	...
		...	...	13	52	16'42	1'10	80	...	60	...	23	85	75	43	0'5	30	8'24	42'80	56	3'46	4'22	0'04	...
Muttra	460 {	5	...	...	2	28	153	2	1	2	...	...	6	2	6	...	5	15	355	...	3	12	5	...
		15	...	...	2	90	3'00	14	0'3	19	...	...	40	20	15	...	11	1'67	11'59	...	33	1'34	1'11	0'02
Agra and Fatehgarhi .	915 {	1	...	...	9	794	112	6	8	7	3	...	28	21	15	1	...	37	16'03	5	7	25	4	...
		91	...	...	3	2	...	...	...	...	...	12	1'87	91	30	17	39	6'63	65'21	1'07	1'74	3'82	41	...
Jhansi	1,017 {	...	...	...	27	259	68	8	4	4	...	4	7	15	23	...	3	86	760	4	8	74	1	...
		...	...	...	9	1	...	...	2	...	...	1	...	...	...	...	...	...	17	...	...	...	...	...
		...	...	...	4'65	6'28	1'29	63	0'8	22	...	32	73	74	45	...	26	8'48	32'67	41	46	7'61	0'01	...
Nowgong	329 {	...	...	...	...	77	26	3	2	4	...	4	7	2	3	...	2	20	287	10	1	9	...	...
		...	...	...	...	2'31	96	...	0'2	22	...	29	19	08	08	...	14	1'90	13'71	1'06	0'02	82	...	...
Mhow and Indore . .	1,713 {	...	...	...	7	586	43	6	8	14	...	1	29	36	39	1	22	99	1,427	20	15	64	7	...
		...	...	...	1'49	20'55	1'41	63	19	1'05	...	11	1'24	2'36	81	11	77	9'36	66'90	1'68	1'99	5'69	23	91
GROUP VIII—S.-E. RAJ- PUTANA, CENTRAL INDIA, AND GUJARAT.	5,528* {	19	...	2	55	2,253	404	35	23	44	3	14	100	88	119	3	49	363	5,566	45	75	243	20	2		
		1'06	...	27	18	64'78	10'95	3'08	75	2'99	82	1'0	4'81	5'17	2'66	35	2'08	39'32	245'64	5'21	9'36	24'75	87	39		
A																										
Saugor	283 {	2	...	...	4	76	15	...	...	1	1	1	2	10	1	...	4	20	214	11	4	5	...	...
		07	...	...	1	...	...	...	...	16	36	04	07	1'38	02	...	35	2'01	12'57	1'02	39	60	...	...
Jubbulpore	1,013 {	17	...	2	35	493	43	4	...	3	3	7	19	43	23	3	10	77	1190	11	22	44	...	...
		1'05	...	31	7'31	14'52	3'38	0'5	...	0'5	0'1	32	10	9'04	1'03	15	58	7'61	59'58	2'17	20	5'24	...	...
ampti	988 {	...	...	1	11	249	48	5	1	2	1	1	2	14	17	...	2	58	736	11	17	30	1	...
		...	...	05	3	6'53	1'49	22	3	09	4	04	08	53	38	...	13	7'54	33'29	1'23	1'67	4'64	0'02	...
B																										
Secunderabad	3,094 {	2	1	...	80	43	162	17	3	17	3	4	51	5	19	4	15	300	1,760	52	88	160	7	...		
		05	1	...	16	...	...	...	1	...	...	...	...	3	...	1	...	...	29	...	...	...	...	...
Belgaum	1,030 {	...	...	1	15	42	45	1	...	1	...	...	12	4	13	...	5	61	479	10	22	29	...	...
		...	...	09	2'44	1'22	1'72	08	...	06	...	15	37	12	35	...	38	6'70	26'59	63	2'25	3'82	...	...
Poona	1,931 {	...	...	...	19	287	83	10	1	23	3	7	22	23	33	7	13	172	1,130	20	49	103	6	...
		...	...	...	3'66	11'98	2'70	27	01	1'25	46	75	81	2'27	1'20	7'13	1'41	21'31	75'84	4'57	4'23	12'51	10	...
Kirkee	1,088 {	4	...	...	11	106	10	4	...	2	...	12	40	43	2	2	11	75	663	22	18	35	...	...
		11	...	...	2	...	...	...	...	...	...	...	...	1	...	1	...	...	8	...	...	...	...	...
Ahmednagar	861 {	6	...	...	15	134	27	5	...	5	...	6	24	4	28	...	5	87	689	12	41	34	...	...
		45	...	...	63	3'41	2'52	50	...	76	...	1'90	1'82	15	1'52	...	61	1'92	43'19	2'12	3'67	6'13	...	...
GROUP IX.—DECCAN	10,288 {	31	1	4	190	14'30	450	46	5	54	11	40	182	222	155	16	65	850	6,870	149	261	440	14	...		
		1'73	1	45	33	46'96	10'87	3'14	15	5'22	1'86	4'13	7'18	20'57	5'01	8'82	5'14	98'07	411'27	21'55	22'06	54'46	25	...		
Colaba and Khandala .	1,152 {	...	...	...	2	392	5	3	3	13	5	2	3	27	13	2	10	121	896	30	42	49	4	3
		03	...	...	1	12'58	1'31	09	15	1'02	1'21	46	43	1'07	4	15	47	14'34	62'62	5'51	4'67	4'16	0'06	05
Cannanore, Calicut and Malapuram.	332 {	...	...	...	1	1	3	...	...	5	...	...	3	1	1	...	2	42	148	4	11	27	...	...
		...	...	...	1	...	...	...	...	1	...	...	14	04	02	...	10	7'23	12'42	95	1'21	5'07	...	...
GROUP X.—WESTERN COAST.	1,485* {	...	...	...	3	393	8	3	...	18	5	2	6	28	14	2	12	163	1,044	34	53	76	4	5
		03	...	...	2	12'63	1'48	09	15	1'32	1'21	46	57	1'11	48	16	57	21'57	75'04	6'46	5'88	9'23	05	06

*Derived from the aggregates.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSIONS.												2. DEATHS.					3. CONSTANTLY SICK.											
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Pyrexia of uncertain origin.	Rheumatic Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Veneral Diseases.	ALL CAUSES.	Syphilis.	Soft Chancre.	Gonorrhoea.	Tania.	ther Entozoa.						
A ellary . . .	477 {	...	1	...	...	77	4	3	3	3	...	...	22	14	...	1	5	49	348	9	...	35	1	...		
		...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	...	...	...	...	...	
		...	01	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	21'42	1'38	...	...	...	...		
angalore . . .	2,238 {	...	...	...	43	94	61	19	1	14	...	3	42	46	35	3	17	252	1,583	82	52	118	6	...			
		...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	11	...	...	...	...	...	
		...	...	...	7'93	4'79	3'10	1'79	01	1'84	...	45	3'13	3'21	1'10	30	1'12	35'26	112'18	12'82	5'72	16'72	26	...			
t. Thomas' Mount .	254 {	...	...	...	1	9	15	...	...	3	...	...	4	4	5	...	3	31	211	7	5	19	3	...
							
		...	...	...	16	21	40	...	...	...	...	...	15	25	11	...	14	20	7'48	04	04	12	07	...
adras and Poona- malce.	683 {	1	...	...	8	20	74	7	2	8	2	3	15	30	1	1	10	98	655	21	24	53	1	...				
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	...	...	...	...	...	
		13	...	...	1'85	1'74	1'52	1'30	07	1'45	20	17	1'69	3'14	02	14	1'66	23'45	59'14	6'84	2'68	13'93	03	...				
GROUP XI.—SOUTHERN INDIA.	3,671 {	*	1	1	...	52	200	154	29	6	28	2	6	83	94	41	5	35	430	2,797	119	86	225	11	...					
		...	1	1	...	4	...	...	...	...	...	...	...	...	...	...	...	...	23	...	...	...	...	...	
		13	01	...	10'02	10'34	5'20	3'31	15	3'72	31	62	6'32	7'97	1'23	67	3'05	64'32	200'22	21'08	8'98	34'26	41	...						
anikhet and Chau- Buttia.	1,639 {	...	...	...	23	108	23	17	...	25	...	3	22	29	30	2	14	81	983	12	15	54	2	1			
		...	...	...	5	...	...	...	...	...	...	1	...	...	...	...	...	...	8	...	...	...	...	...	
		09	5'33	3'55	1'61	...	93	01	1'75	65	13	74	1'54	1'02	23	83	8'53	56'32	2'02	59	5'92	03	03					
hakrata . . .	1,398 {	31	...	2	6	235	8	9	...	16	1	3	19	14	25	...	10	80	774	19	9	52	...	...				
		...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	11	...	...	...	...	...	
		1'51	...	20	1'54	10'41	31	...	46	...	185	33	24	1'30	89	1'19	...	87	7'13	44'29	2'22	25	4'66					
ebong . . .	603 {	...	...	...	...	20	29	5	...	6	2	...	13	3	33	1	1	39	339	20	4	15	3	...		
							
		01	90	1'08	...	67	...	55	59	...	1'02	52	1'26	43	13	5'94	23'42	2'86	52	2'56	06	...					
olon . . .	343 {	...	...	...	7	23	4	...	...	2	1	2	7	4	...	2	2	10	164	2	3	5	1	...	
		...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	2	...	...	...	...	...	
		...	...	...	1'06	71	44	...	01	30	07	18	72	48	...	04	06	1'00	9'41	26	08	66	02	...			
agshai . . .	707 {	...	...	...	2	22	50	14	...	8	1	8	8	4	1	2	5	67	414	16	33	18	2	...			
		...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	3	...	...	...	...	...	
		30	1'04	2'27	...	1'26	...	67	15	118	43	17	02	49	28	8'23	26'75	1'51	4'72	2'00	13	...					
ubathu . . .	470 {	1	...	...	23	61	1	3	...	4	1	1	1	...	3	1	40	31	300	11	5	5	...	...				
		...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	
		02	7'74	1'97	09	...	34	...	1'26	72	05	02	...	10	06	1'40	3'62	24'40	1'59	15	1'88					
utogh . . .	232 {	...	...	...	1	24	1	...	...	10	...	...	5	...	2	...	...	3	115	3	...	...	1	...
							
		82	1'44	09	42	14	...	06	03	...	41	7'47	41	03	...					
Kuldana . . .	340 {	...	...	...	2	45	7	9	...	3	1	1	7	4	...	...	5	16	199	7	2	7	...	...				
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	
		...	...	...	13	52	38	1'13	01	01	1'10	13	01	82	...	...	32	99	10'89	32	35	32	...	...				
Kalabagh and Baragali.	85 {	...	3	...	1	2	4	1	...	4	...	...	3	1	1	1	3	51	2	...	...	1	...	...				
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	
		...	14	...	03	10	22	04	...	26	...	02	10	08	06	06	08	03	1'87	02	...	01	...	...				
Camp Gharial . . .	644 {	...	...	...	16	33	31	2	...	2	...	...	5	...	14	...	1	20	411	6	4	10	5	...	
		...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	
		04	...	...	2'03	59	1'02	06	...	07	...	...	04	03	20	...	06	86	13'94	24	13	49	05	...		
, Barian and Khairagali.	561 {	...	2	...	8	46	4	7	...	12	1	1	3	10	14	...	9	24	248	7	6	11	...	...				
		...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	5	...	...	...	...	...	
		...	01	...	1'18	1'47	1'16	54	01	1'05	06	10	08	1'06	47	01	51	10'27	22'13	4'56	2'04	3'67	...	...				
Khan Spur . . .	352 {	...	1	...	3	66	6	4	...	3	...	2	8	3	11	...	2	11	221	3	5	3	1	...						
							
		...	13	...	43	1'89	43	36	...	23	...	30	46	21	25	...	06	35	10'93	21	11	03	03	...						
Cherat . . .	496 {	...	...	...	15	150	35	4	5	3	2	3	1	9	22	...	6	9	475	3	2	4	6	...			
		...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	
		09	...	...	2'76	6'25	3'75	25	69	40	35	16	04	1'29	1'68	...	30	2'2	31'27	18	90	1'13	17	...				

* Derived from the aggregates.

EUROPEAN TROOPS, 1908.

TABLE IV—continued.

ACTUALS of STATIONS, GROUPS, and ARMIES, on which the ratios in Tables I—III have been calculated.

STATIONS AND GROUPS.		Average annual strength.	1. ADMISSIONS.										2. DEATHS.					3. CONSTANTLY SICK.									
			Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Pyrexia of uncertain origin.	Rheumatic Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Veneral Diseases.	ALL CAUSES.	Syphilis.	Soft Chancre.	Gonorrhoea.	Tania.	Other Entozoa.		
Quetta		2,347 {	...	...	...	42	219	26	71	1	11	1	3	9	19	3	8	79	1,009	27	10	42	12	...	
			...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	16	...	...	...	...	...
			...	...	...	6'23	7'32	1'40	4'46	...	81	53	6	1'01	1'50	75	38	52	8'59	60'20	3'22	7'2	4'65	0'02	...
Maymyo		706 {	...	...	...	184	49	9	...	4	...	1	6	4	1	2	1	76	576	21	29	26	2	...	
			...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	6	...	...	...	...	...
			...	...	...	15	9'07	1'63	58	...	27	40	08	39	19	01	35	05	14'46	43'05	7'62	3'99	2'85	0'04	...
GROUP XIIIa.—HILL STATIONS.		10,923 {	33	6	2	149	1,238	278	155	6	113	11	31	144	94	176	14	105	549	6,279	159	127	263	35	1		
			1'66	28	29	29'74	47'23	14'88	11'08	73	9'85	4'96	3'26	7'40	8'78	7'07	2'08	5'97	72'62	386'34	27'24	14'55	30'83	58	03		
Darjeeling		346 {	...	...	...	1	23	13	1	...	2	1	1	11	4	3	3	30	224	13	3	14	...	...	
			...	...	...	22	1'28	59	05	03	21	38	03	6	1'17	16	35	10	3'92	18'76	2'48	30	1'14	...	...
Naini Tal		175 {	...	...	...	3	32	1	...	...	1	...	1	4	...	2	2	12	91	4	3	5	...	1	
			03	...	...	43	1'89	48	...	22	01	...	04	14	34	16	93	15	1'04	8'79	63	24	1'17	...	07
Landour		205 {	...	...	...	97	16	...	1	2	...	...	1	...	4	3	11	9	238	2	4	3	...	...	
			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...
			14	...	...	...	3'06	70	...	06	13	...	...	01	...	14	19	48	96	12'80	28	28	40	...	...
Kasauli		472 {	...	...	...	4	104	11	2	...	6	3	...	9	1	10	3	8	15	327	2	1	12	...	...
			04	...	...	1'10	10'04	41	40	...	24	32	02	45	04	31	28	50	2'14	29'38	09	11	1'94	...	...
Dalhousie		834 {	...	...	...	9	115	13	8	...	4	1	5	4	2	2	1	4	57	369	39	3	15	...	...
			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...
			...	...	...	2'74	10'04	69	30	46	19	21	33	23	13	05	04	72	6'91	35'74	4'27	60	2'04	08	...
Murree and Lower and Upper Topas.		338 {	1	...	...	14	60	10	3	...	7	1	3	3	1	3	4	4	8	205	3	...	2	...	...
			14	07	...	3'85	7'73	2'77	69	45	2'05	39	79	74	65	52	53	81	1'45	40'75	53	20	72	...	...
Mount Abu		139 {	...	...	...	1	48	...	...	2	...	...	1	2	3	2	4	3	112	1	1	1	...	...	
			...	...	...	25	1'28	...	...	...	44	...	...	19	20	12	24	22	11	5'24	02	01	08	...	...
Pachmarhi		154 {	...	...	...	71	2	2	...	2	...	...	...	2	8	10	4	5	10	189	3	1	6	1	...
			...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
			...	...	...	09	2'06	04	19	...	06	...	...	13	78	21	97	54	80	9'53	24	36	20	01	...
Purandhur		105 {	...	...	...	6	17	3	1	...	10	...	...	6	3	...	...	1	1	83	1	...	...	...	...
			...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...
			...	...	...	1'48	1'24	13	07	...	70	16	...	39	15	...	27	01	2'04	9'18	1'52	...	52	...	...
Wellington		1,045 {	1	...	...	3	64	4	24	1	20	2	...	33	8	20	5	18	109	1,034	32	30	47	1	1
			01	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	5	...	...	...	...	...
			...	...	...	2'96	4'94	04	1'29	13	2'28	05	...	1'93	1'09	...	1'22	1'4	22'32	78'63	12'19	2'97	7'16	03	01
GROUP XIIIb.—HILL CONVALESCENT DEPOTS, AND SANITARIA.		3,812 {	...	...	...	41	631	73	41	2	56	8	10	74	39	58	27	60	254	2,873	100	49	105	2	2
			36	07	...	13'12	43'56	5'8	2'99	1'35	6'41	1'51	1'26	4'87	4'85	2'35	5'02	4'94	41'69	248'80	22'25	5'07	14'37	12	08		
Troops, marching, India.		1,603 {	1	...	1	...	321	43	6	6	2	...	9	10	31	40	1	2	106	938	18	26	62	1	...		
			...	...	01	06	1'44	32	02	03	...	...	0	02	13	17	01	...	43	4'00	12	08	23	01	...
Bazar Valley Field Force		97 {	...	...	...	10	...	1	...	...	...	2	1	...	7	...	...	...	45	...	...	...	...	...
			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1'11	...	...	...	...	...
Mohmand Field Force .		314 {	1	50	...	5	51	19	...	...	7	...	1	3	6	41	...	...	15	524	2	13	10	...	...
			...	41	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	50	...	...	...	...	...
			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	27	...	...	...	...	...	...
Deolali Depot		367 {	...	...	...	125	...	1	...	2	...	...	4	3	1	...	...	42	253	12	15	15	...	...	
			...	...	...	07	6'06	...	0	...	12	...	...	11	29	02	...	...	5'37	15'64	1'20	2'21	1'96	...	...
EXTRA INDIA. Aden		1,100 {	...	...	...	2	72	2'15	4	...	4	...	16	24	22	2	12	23	692	3	9	11	3	...	...
			...	...	...	...	3'40	7'08	36	...	62	1'57	...	74	1'57	06	14	78	5'86	44'79	88	99	3'29	06	...

* Derived from the aggregates. † Details by diseases are not available. ‡ Venereal sores.

GROUPS AND ARMIES.		Average annual strength.	1. ADMISSIONS.										2. DEATHS.					3. CONSTANTLY SICK.									
			Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Pyrexia of uncertain origin.	Rheumatic Fever.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Venereal Diseases.	All Causes.	Syphilis.	Soft Chancre.	Gonorrhœa.	Tœnia.	Other Entozoa.		
INDIA.	† Remaining from 1907	68,933	83	...	2	115	338	73	53	...	60	12	35	105	55	11	22	29	630	2,838	159	112	359	5	...		
	Admissions		433	93	53	1,001	16,824	5,096	499	203	608	93	269	1,199	992	1,217	115	615	4,801	57,870	1,087	1,107	2,607	160	13		
	Total deaths		...	76	2	190	35	...	...	37	17	16	27	6	29	1	55	2	3	674	3	...	...	...	...
	Deaths out of Hospital.		...	...	...	...	...	...	...	12	4	...	...	...	...	...	...	...	...	72	...	...	...	...	...
	Constantly sick.		14'58	1'46	5'71	184'71	572'17	166'59	33'06	9'86	56'23	23'40	24'58	59'38	77'35	35'27	23'53	40'08	606'13	3,148'47	162'66	114'79	328'68	4'17	1'02		
	Average duration of a case in days.		12'32	5'75	39'43	67'54	12'45	11'96	27'92	17'78	33'85	92'09	33'44	18'13	28'54	10'61	74'89	23'85	46'21	19'91	54'77	37'95	46'14	9'54	28'72		
NORTHERN ARMY	* 36,676	397	36	46	607	11,476	3,682	257	163	380	58	173	683	415	703	67	384	2,138	34,456	507	416	1,215	93	8			
		...	28	1	118	21	...	...	29	9	12	17	5	15	1	32	1	2	393	2	...	...	...	...
		12'64	1'42	4'98	117'68	392'82	115'31	20'62	8'72	34'99	15'71	15'93	33'42	34'12	21'55	9'63	23'29	269'01	1,795'81	63'88	46'00	159'13	2'79	5'9			
SOUTHERN ARMY	* 30,243	34	7	6	373	4,966	1,352	235	34	219	35	84	497	540	421	47	229	2,542	21,907	560	662	1,320	66	5			
		...	7	1	69	14	...	...	8	8	4	10	1	14	...	23	1	1	227	1	...	...	...	...
		1'94	'04	'72	66'97	177'91	50'96	17'42	1'11	21'24	7'69	8'63	25'94	43'10	13'55	13'89	16'79	336'69	1,339'27	98'66	68'71	169'32	1'37	'43			

GROUPS AND ARMIES.		1. STRENGTH.												2. CONSTANTLY SICK.												TOTAL.
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
GROUP	I.—BURMA COAST AND BAY ISLANDS.	1,059	1,116	1,344	1,379	1,336	1,269	1,290	1,304	1,330	1,226	1,316	1,341	15,310												
		86'55	73'80	62'06	75'37	66'52	64'87	57'00	47'45	56'47	49'58	50'73	45'26	735'66												
"	II.—BURMA INLAND	1,294	1,317	2,002	1,993	1,823	1,837	1,872	1,963	1,933	1,893	1,743	1,341	21,011												
		101'30	120'38	111'02	79'20	54'06	65'53	79'86	83'83	90'86	82'48	84'19	57'65	1,010'36												
"	IV.—BENGAL AND ORISSA.	2,012	2,004	1,661	1,646	1,590	1,583	1,605	1,647	1,669	1,687	1,694	2,269	21,067												
		96'19	88'75	54'29	65'83	66'52	64'87	71'07	97'68	95'34	88'06	75'17	90'70	955'47												
"	V.—GANGETIC PLAIN AND CHUTIA NAGPUR.	7,661	7,495	7,894	6,964	5,906	5,846	5,931	5,831	5,927	6,471	6,925	6,846	79,697												
		323'70	241'05	255'42	281'30	255'08	260'63	254'58	216'48	256'34	339'63	290'63	218'38	3,193'23												
"	VI.—UPPER SUB-HIMALAYA.	19,759	19,767	19,169	14,623	11,295	9,923	9,449	9,408	9,537	10,108	11,466	16,627	161,131												
		950'73	832'68	762'01	691'24	500'87	483'83	475'97	595'66	878'54	988'17	997'19	19	9,109'08												
"	VII.—N.-W. FRONTIER, INDUS VALLEY, AND NORTH-WESTERN RAJPUTANA.	6,947	5,779	6,551	5,511	4,035	4,136	3,694	3,587	3,750	3,962	4,607	6,166	58,715												
		287'26	215'61	201'26	207'67	198'48	246'15	195'98	185'97	232'99	341'96	373'93	396'96	3,084'22												
"	VIII.—SOUTH-EASTERN RAJPUTANA, CENTRAL INDIA, AND GUJARAT.	6,157	6,046	6,219	5,729	5,450	5,294	5,369	5,384	5,455	5,470	4,777	4,990	66,340												
		192'52	163'92	179'18	184'60	187'58	151'24	152'42	235'77	421'19	394'30	367'50	316'45	2,947'67												
"	IX.—DECCAN	10,868	10,156	10,968	10,384	10,124	10,142	9,835	10,310	10,471	10,408	10,136	9,651	123,456												
		463'52	408'13	405'55	387'46	351'90	376'89	389'87	451'57	517'63	469'91	399'49	313'25	4,935'17												

Note.—Constantly sick × 366 = total annual loss of service.

* Derived from the aggregates.

† Remaining + admitted = total treated ; remaining + admitted + died out of hospital = total cases.

EUROPEAN TROOPS, 1908.

TABLE IV—concluded.

GROUPS AND ARMIES.	1. STRENGTH.												2. CONSTANTLY SICK.	TOTAL.
	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.		
GROUP X.—WESTERN COAST	1,553	1,541	1,523	1,498	1,486	1,444	1,935	1,475	1,306	1,291	1,320	1,443	17,815	
	78°03	77°59	61°64	70°10	71°06	62°46	81°45	79°07	64°67	50°03	85°87	78°64	900°55	
„ XI.—SOUTHERN INDIA	3,689	3,665	3,832	3,667	3,540	3,534	3,670	3,750	3,711	3,617	3,563	3,810	41,048	
	202°87	206°72	209°04	193°50	193°67	185°03	200°68	197°42	234°97	226°35	189°60	157°77	2,402°62	
„ XIIa.—HILL STATIONS	3,176	2,319	4,512	10,178	12,907	16,321	17,292	17,336	16,803	15,529	10,277	4,431	131,081	
	111°54	88°44	148°63	272°18	426°27	573°12	644°05	630°78	611°82	607°45	371°25	150°54	4,636°07	
„ XIIb.—HILL CONVALESCENT DEPÔTS, AND SANI- TARIA.	1,117	1,233	1,466	3,398	5,322	6,091	5,931	5,661	5,546	4,940	3,339	1,698	45,742	
	63°39	66°16	79°67	173°09	321°09	405°62	391°36	344°93	330°56	352°11	295°06	156°44	2,585°68	
INDIA	68,118	67,040	69,789	70,217	69,313	69,191	69,234	69,152	69,246	69,096	68,724	68,078	827,198	
	3,032°58	2,649°96	2,582°84	2,747°11	2,830°86	3,022°23	3,066°39	3,238°74	3,852°71	4,099°84	3,648°89	3,003°07	37,781°62	
NORTHERN ARMY	36,313	35,399	37,571	37,400	35,602	38,272	38,519	38,247	38,195	37,836	33,477	33,307	440,138	
	1,623°78	1,361°23	1,345°34	1,476°25	1,521°87	1,730°38	1,745°11	1,863°92	2,298°23	2,550°85	2,224°89	1,807°85	21,549°70	
SOUTHERN ARMY	30,502	28,548	31,064	31,054	30,676	30,663	30,715	30,905	30,729	30,213	29,069	28,755	362,893	
	1,405°04	1,282°91	1,233°49	1,260°72	1,217°11	1,279°00	1,321°28	1,374°82	1,554°11	1,544°96	1,411°66	1,186°16	16,071°26	

TABLE V.

ABSTRACT of the CANTONMENT SANITARY REPORTS of the most UNHEALTHY STATIONS, SANITARY DEFECTS, IMPROVEMENTS, SUGGESTIONS, etc.

(The ratios of sickness and mortality will be found in Table III).

NORTHERN ARMY.

Fyzabad.—*Pucca* drains exist all over the Cantonment but are not continued right into the river—hence there are many pools left as the river subsides in which mosquitoes breed; the drains are, however, being completed. The water supply is obtained from open wells which are the chief breeding places of mosquitoes. Unused wells have been closed. A piped water supply is badly required. Sanitary improvements in the urinals, washing compartments and latrines, at a cost of Rs. 4,435 were effected during the year.

The Cantonment Committee offer no suggestions.

The Principal Medical Officer of the Allahabad and Fyzabad Brigades remarks that “the *pucca* drains should be extended in order that when the river subsides after the rains, pools would not be left in which mosquitoes can breed. This was made the subject of remarks in a special report on an enquiry into the causes of malarial fever, which was submitted recently. Tanks in the neighbourhood of Cantonments should be either filled in or drained when possible.”

The General Officer Commanding the Fyzabad Brigade whose remarks are endorsed by the General Officer Commanding the 8th (Lucknow) Division, states that the drainage of Cantonments is being steadily improved, but the low-lying Mangha land, which he believes is the chief cause of malaria, cannot be dealt with as it covers a very large area and is flooded annually by the Gogra. He adds that incinerators for rubbish and filth are being tried and promise well.

Cawnpore.—The drainage of the Cantonments is not altogether satisfactory and there are several *nullahs* and holes where the water lodges after rain. The water supply is derived entirely from wells which, under certain circumstances, become contaminated, especially those in bazaars and private compounds. The bazaars in Cantonments are becoming congested and would be improved by being opened out in places by new roads, etc. In the pail depôt, the floors were made impermeable and sewers were repaired at a cost of Rs. 422.

The Cantonment Committee suggest:—(1) the provision of a piped supply of filtered water to the barracks and bazaars with the necessary stand pipes, hydrants, &c.; (2) the opening up of the bazaars, in the more congested parts, by wide roads; and (3) the filling up, as far as practicable, of all holes, depressions or excavations where the water lodges after rain, and the improvement of the drainage in places.

The Principal Medical Officer of the Allahabad and Fyzabad Brigades endorses the recommendations of the Cantonment Committee and adds that a piped water supply is urgently needed.

The General Officer Commanding the Allahabad Brigade concurs in the suggestions made by the Cantonment Committee and considers the following measures necessary, in order of importance:—(1) a piped water supply; (2) the introduction of incinerators and the gradual abolition of the pail depôt which he considers objectionable in several ways, as it is at times very offensive, pollutes the river, and costs money without giving any return as in the case of trenched land. He considers that the excreta from the pail depôt area of the Cantonment should be burnt in incinerators, and that where this system cannot be worked, trenching must be resorted to, and the pail depôt abolished as soon as possible, (3) the opening up of congested bazaars by wide roads, a matter which is now receiving attention.

Shahjahanpur.—The drainage is entirely surface and there are several small tanks within Cantonments, which were treated with kerosine oil. The floors of the latrines and urinals in barracks require to be made impermeable and those in the barrack rooms, kitchens, etc. relaid; and many of the surface drains require repairs or relaying and some others to be made *pucca*.

The Cantonment Committee remark that the relaying of the floors in barracks is a Military Works Service and that no funds are available pending a definite decision as to the retention of the Cantonment. They add that repairs to the surface drains are being carried out and the principal main drain is being made *pucca*.

The Principal Medical Officer of the Bareilly and Garhwal Brigades agrees with the recommendation that the floors of latrines and urinals should be impermeable.

Meerut.—The fall available for drainage is small. There are several large and most insanitary tanks in the Cantonment and some of the drains lead into them. The drainage of the Sadar Bazaar was very defective but the whole system has just been remodelled and relaid. The villages of Buxar Khara, Kankar Knara and Fazilpur are objectionably close to Cantonments, and a project for taking the first-named and its surroundings into Cantonment limits is being matured. Bungalow No. 38 which has been in a ruined state for some time should either be removed or rebuilt. Dairies and cattle sheds should be removed from all regimental lines. A scheme is being worked out to provide *Dhobi Ghats*, with laundries. An expenditure of Rs. 3,879 was incurred on the completion of the Sadar Bazaar drainage scheme, Rs. 441 on anti-malarial measures and Rs. 199 on experimental incinerators.

The Cantonment Committee suggest that steps be taken towards filling up the large tanks on the Volunteer parade ground and in the compound of Bungalow No. 40; and that the question be considered of diverting the surface drainage from the tanks in Cantonments to the Abu Nala.

The Principal Medical Officer of the Division remarks that the surface drainage is defective throughout the station, and that the tanks in the lines and cantonments should, if possible, be filled in or drained. No system of surface drainage exists in the Ammunition lines and the village of Khera near these lines should be destroyed. The presence of cattle pens within the lines is most insanitary and their removal is an urgent necessity. The provision of a Government dairy should receive early attention as the presence of dairies within the lines is objectionable. The *Dhobi Ghats* should be provided with a drying room, to obviate the practice of removing clothing to insanitary houses; and the R. A. Ghat requires a larger area to deal with waste water. The beef market should be transferred to the unused half of the main market and all markets should be rendered fly proof by the use of gauze.

The General Officer Commanding the Meerut Cavalry Brigade concurs in the Principal Medical Officer's remarks. He states that the cost of filling in the tanks is prohibitive, but steps are being taken to pump them out before next rains when, if the surface drainage can be diverted the rainfall can be dealt with. The presence of dairies in the lines is objectionable but in his opinion less objectionable than that troops, and families should obtain their milk from unsupervised establishments and there are no means of supervision possible other than the present arrangements or the institution of a Central Government dairy situated at some distance from Cantonments, equipped with proper plant and an adequate personnel. He considers the washing arrangements are not satisfactory, as much washing takes place in the fouled water of the Abu *nullah* and that in the absence of a sufficiency of *ghats* this cannot be prevented; also that the Cantonment, including the barracks, is over-populated and too crowded for healthy conditions to exist. The barracks, stables, latrines, cook-houses and men's living rooms are all crowded together in too small a space and there is little or no ventilation. The smaller houses in Cantonment, are also all blocked together with very small compounds and he would like to see two-thirds of the trees cut down. In view of the high price of water the Cantonment funds are insufficient to provide adequate road watering so that the whole place is enveloped in clouds of dust which must be teeming with unhealthy matter.

Delhi.—The drainage in the Fort is unsatisfactory but new drains are being laid down. The Panchakki (Canal) has been closed at its lower end to prevent its opening into the fort ditch; and the diverting of the two city drains is, it is understood, being considered.

The Cantonment Committee offer no suggestions.

The Principal Medical Officer of the 7th (Meerut) Division remarks that Delhi Fort is notoriously unhealthy owing chiefly to surroundings and faulty drainage, as the moat receives the city surface drainage and has no outlet. There is a small stream which is diverted from the river in flood and later is fed by city drainage only, and the presence of this open sluggishly flowing drain is most insanitary. The surface drainage is generally defective and the numerous hollows forming pools cause an excess of malarial disease. Steps should at once be taken to remedy these evils, and the hollows and water holes filled in as the Fort must always be unhealthy unless a good and effective system of drainage is devised.

The General Officer Commanding the Meerut Cavalry Brigade concurs in the preceding remarks. He adds that the Fort during the autumn months is a regular “death trap” and in his opinion unfitted for occupation by troops until the moat is pumped dry and the surface drainage of Delhi diverted into the Jumna.

TABLE V.—*continued.*

ABSTRACT of the CANTONMENT SANITARY REPORTS of the most UNHEALTHY STATIONS, SANITARY DEFECTS, IMPROVEMENTS, SUGGESTIONS, etc.

Amritsar.—The Durgiana and Sart Ram tanks near the Fort which are very insanitary still exist and a brickyard near the Cantonment affords places for the collection of water. The well used for drinking water is situated near the main drain and is liable to be dangerous at any time. The Gawal Mundi bazaar on the borders of the Cantonment is in an extremely filthy condition and a constant menace to the health of the inhabitants, but it is hoped to improve the place in the future. This bazaar has a latrine so near the Cantonment boundary that it is almost impossible to prevent the natives from committing nuisances on the Cantonment land. The situation of the Cantonment is such that sanitary conditions can never be very satisfactory as long as the city of Amritsar is in the condition it is and the moat around Fort Govindgarh exists. Between this Fort and the city walls, partly in the Cantonment and partly on its confines the conditions are very bad. In the Durgiana tank both men and animals bathe and the water is always dirty. An open drain which is always ill-smelling and contains pools of stagnant water runs away from it, on the borders of the Cantonment. The moat about the Fort always contains water and is a menace to the health of the troops.

The Cantonment Committee remark that the ponds and hollows in the Cantonment are being filled up as funds are available, disused wells are kerosined and care is taken to prevent the accumulation of anything that would prove a nidus for malaria. They say that the Cantonment suffers from shortness of funds but still in ordinary years there is very little malaria that could be attributed to any conditions existing in the Cantonment. The moat about the Fort is objectionable, but a proposal is under consideration to procure a small supply of fish to put into it as an experiment. The committee hope before long to close the Gawal Mundi bazaar and to discontinue the practice of killing animals for human consumption there if the proposal made by the civil authorities is agreed to. *viz.*,—to build a new slaughter house at any selected spot in the Cantonment, free of cost, on the sole privilege that all cattle intended for consumption in the civil lines should be slaughtered there, the present bazaar being used for the slaughter of diseased animals only.

The Principal Medical Officer of the Sirhind and Jullundur Brigades suggests the disposal of night soil, road sweepings and litter by means of Raitt's incinerator instead of the present trench system, as the former method is cheaper and more sanitary than the latter which in the rainy season is most unsuitable for Amritsar on account of the very high level of the sub-soil water. He considers that the latrines in four different places in Fort Govindgarh should be grouped and a urinal of the standard type provided. The latrines in cantonments for the use of servants, etc., should also be grouped in convenient places, and provided with a small Raitt's incinerator, those in each compound being closed. The latrines should be of a moveable pattern and the "wet" system adopted of treating the pans, seats, etc. The question of extending the city pipe water supply to the Cantonment should be considered as the present supply from the well near the main drain is always liable to contamination. He thinks it would be well to accept, with the least possible delay, the offer made by the civil authorities to build a new slaughter house as the Gawal Mundi bazaar is still in a very insanitary condition. He concludes by saying that the suggestion to place small fish in the moat is a good one and the experiment might well be extended to the other tanks in the neighbourhood, the "dabchicks" which now frequent those places being shot, as otherwise they will destroy many, if not all the fish and render the experiment a failure.

The General Officer Commanding the Jullundur Brigade fully concurs in the Principal Medical Officer's remarks and adds that co-operation by the civil authorities is necessary in the matter of sanitation.

The General Officer Commanding 3rd (Lahore) Division, remarks that the question of a pipe water supply, which is a work of some magnitude, is being gone into. He states that the ditch round the Fort is so deep that its bottom is below the water level, making its drainage impossible, that undoubtedly this large quantity of stagnant water is a great source of danger, and the cost of filling up the ditch would be enormous, so the experiment is to be tried of placing small fish in the moat. He has agreed to the suggestions made by the civil authorities regarding a new slaughter yard, and the question of having one built some distance from the Gawal Mundi bazaar is under consideration. He agrees with the P. M. O. as to the use of incinerators.

Lahore Cantonment.—The surface drainage is inadequate and more *pucca* drains are required.

The Cantonment Committee state that the new water supply is very near completion. They suggest that the remaining pits and depressions in and about the Cantonment should be filled, that trees for giving shade are urgently needed and that more care should be taken of roadside trees.

The Principal Medical Officer of the 3rd (Lahore) Division remarks that the most important sanitary requirement is that of an improved surface drainage, as hitherto the matter has only been dealt with piece-meal, without regard to any good general scheme. He is strongly of opinion that though the draining of the station effectively will be an expensive undertaking, the cost should be faced, as the result must be a still further diminution of malarial fevers, and therefore a very considerable saving to Government in the long run.

The General Officer Commanding the Division states that nearly half a lakh of rupees has been already spent on surface drainage and that a great deal more is still required, especially in the vicinity of the Artillery barracks where, after heavy rain, the water lies for several days; the Cantonment being very flat and that an enormous sum would be necessary thoroughly to drain the place. Orders have been issued to give effect to the other minor suggestions of the Cantonment Committee; and funds have been allotted for the construction of a *pucca* drain alongside of the Station Hospital in Amritsar Street.

Sialkot.—A "mosquito brigade" has to some extent dealt with the numerous puddles and small swamps produced by building operations, and others have been dealt with by the units concerned. Nearly all wells in the Cantonment may be regarded as favourable to mosquito breeding and liable to contamination, if not through the soil in all cases, at least in the method of drawing and distribution. The Royal Horse Artillery and 12th Royal Lancers bazaars are overcrowded and the villages to the north are dirty and delapidated. Incineration is the system of conservancy now in vogue, and is rapidly replacing the removal system.

The Cantonment Committee remark as follows:—"The facts connected with the prevalence of malarial and enteric fevers and of cholera in the vicinity of Cantonments point to the following measures as necessary:—

1.—For the prevention of malaria:—

The concreting of the tops of wells.

The introduction of a piped water supply.

The filling-up of all borrow pits by those who make them, the ash from incinerators being employed for this purpose.

The re-adjustment of the scope of the "Mosquito brigade"—a small working party and tools being provided for dealing with pools.

2.—For the prevention of Cholera and Enteric Fever:—The introduction of a piped water supply. Until this has been obtained, wells should be pinked periodically, and drinking water boiled.

The provision of adequate water-sterilising appliances such as can be used by troops, British and Native, when out of Cantonments, both in peace and war.

The extension of incineration to every environment of the soldier. This strikes at the roots of those diseases by sterilising their primary-foci.

For Enteric Fever only:—Inoculation.

The early discovery of the disease among all classes followed by isolation of acute cases and segregation of convalescents.

The examination of all servants to detect the presence of "bacilli carriers".

The Principal Medical Officer of the Abbottabad and Sialkot Brigades remarks that the most pressing need at present is the introduction of a piped water supply, to prevent the spread of enteric fever, cholera and malarial fever. That water-sterilising apparatus should be supplied to the troops, which they should work in peace so as to acquire familiarity with it, and with the necessity for drinking sterilized

TABLE V.—*continued.*

ABSTRACT of the CANTONMENT SANITARY REPORTS of the most UNHEALTHY STATIONS, SANITARY DEFECTS, IMPROVEMENTS, SUGGESTIONS, etc.

water only ; as thus in war, they would be less liable to diseases which at such periods destroy their efficiency ; and that portable materials for incineration would assist to the same end, if provided for the use of troops whenever they leave cantonments. He adds that the remaining suggestions of the Cantonment Committee could be carried out by local arrangement.

The General Officer Commanding the Sialkot Brigade states that the exceptionally heavy rain which fell during July and August was the indirect cause of much malarial fever. He adds that estimates have been submitted for a piped water-supply which is very urgently required ; and recommends that the question be taken up of supplying water sterilizing apparatus to the troops, as it would be especially useful at manœuvres and on field service.

Rawalpindi.—The surface drainage from the Lalkurti bazaar and the Royal Artillery barracks is conducted in *pucca* drains for a short distance only and then allowed to run into open *nullahs*, but a scheme of drainage is being devised to remedy this. The river Leh and the continuation of the Royal Artillery *nullah* and the drain from the Lalkurti Bazaar are the two main defects in sanitation in the vicinity of barracks and cantonments which, under existing circumstances, are literally “encircled by a girdle of filth” and this accounts for the low standard of health. The grouped latrine system is being steadily introduced in the station, with the most marked success from a sanitary point of view ; incinerators are attached to each grouped latrine and the excreta are destroyed by fire and rendered quite innocuous.

The Cantonment Committee offer no suggestions.

The P. M. O. of the Division is of opinion that the drain in continuation of the Royal Artillery *nullah* and that from the Lalkurti bazaar should be made *pucca* ; and adds that recommendations to this effect have already been submitted.

The G. O. C. shares the opinion of the P. M. O. in regard to the water channels mentioned by him being made *pucca* ; and considers that more accommodation is required.

Nowshera.—The corrugated iron roofs of the British Infantry huts (Hill scale) render them unfit for occupation during the hot weather and until November. The Nowshera kalari is very insanitary and the civil authorities, on the application of the Cantonment authority, are taking steps to remedy this defect. Litter has been dumped down by corps in places, but on representations being made it has been buried, burnt or spread out.

The Cantonment Committee offer no suggestions.

The P. M. O. of the Division is of opinion that the huts with corrugated iron roofs should not be occupied before 1st November, at the earliest ; as such are not sufficient protection before that date. The troops using them should remain in the hills till then, unless they can use other barracks till that date. He considers that orders to prevent the dumping of litter and arrangements for the erection of incinerators are matters for local action.

The General Officer Commanding the Nowshera Brigade states that he would like to see more care in the matter of dumping litter in the vicinity of Cantonments, and advocates the speedy erection of incinerators to dispose of bazaar refuse.

The Lieutenant-General Commanding the Division remarks that the sanitary arrangements of Nowshera have much improved during the past five years.

Peshawar.—The removal system of conservancy is gradually being done away with and all latrine and urinary excreta are being consumed in incinerators, in the portions of the Cantonment under the Cantonment Committee. The regimental bazaars are a standing menace to health, but the cost of removing them is prohibitive. The present method of excreta disposal by carriage and burial at a distance is open to grave objections and might be met by a system of incineration on the spot.

The Cantonment Committee remark that the chief measures now being carried out for improving the sanitary condition of the station are as follows :—

(a) The abolition of servants latrines in compounds and the erection of cantonment group latrines in their place. Twenty-three group latrines have now been completed and the remainder will be built in the forthcoming year. This is a most important sanitary improvement, as it does away with private servants latrines which are as a rule most insanitary.

(b) The introduction of incinerators for disposal of excreta and rubbish. Twenty-five incinerators, large and small, chiefly of a modification of Major Raitt's pattern, have now been installed and others are in process of construction. This method of disposal is undoubtedly suitable to Peshawar and does away with the necessity for filth carts travelling through the cantonment and the consequent disadvantages. As the excreta are emptied straight from latrines on to the incinerators, there is no possibility of flies breeding and thus spreading disease. It has been found that very little smoke is given off by these incinerators when properly attended to, and that there is no perceptible odour from the excreta.

(c) Making *pucca* the irrigation channels. This is strongly insisted upon by the medical authorities, as tending to reduce the number of breeding grounds for mosquitoes. The cost of the scheme will be very large ; Rs. 3,640 has been expended in the year under review and this work will be continued year by year as funds permit.

(d) The diminution of irrigation and vegetation on land adjacent to barracks. A quantity of land has been taken back from the Grass Farm and will be allowed to remain uncultivated.

They also make the following suggestions :—

Diminution of irrigation and vegetation ; making *pucca* all *kutchas* drains ; the removal of Grass Farm operations from the vicinity of the Cantonment ; the removal or gradual extinction of the regimental bazaar ; and the modification of the present system of excreta removal.

The Principal Medical Officer of the Division states that orders for the limitation of irrigation and cultivation have already been given by the Lieutenant-General Commanding. He considers a large extension of masonry surface drains a necessity, and that the work should be undertaken systematically as funds become available. A system of deep drainage is also called for, to relieve the water-logging of certain parts of the station, but this would be a matter far beyond local funds ; and he is of opinion that any grouping of servants latrines should be carried out with extreme caution, as inflicting a constant hardship, if applied without great care, and tending to insanitary rather than sanitary results.

The General Officer Commanding the Division remarks that all that can be done with the funds available is now being done to improve the sanitary condition of the station. Irrigation has been reduced very largely ; drainage is being carried out ; much superfluous vegetation has been removed ; and incinerators have been introduced in most parts of the Cantonments. He adds that notwithstanding the medical cry for “more improvements”, he feels sure that, taken all round, the troops are living in a hundred fold more sanitary surroundings than did their predecessors ; and that no measures for further improving Cantonment limits will be neglected.

Agra.—The main drain leading from the barracks and hospital to the city drain is badly constructed and has a very foul smell especially during the hot weather, notwithstanding that sweepers clean it twice daily ; and this drain as well as many of the surface drains in Cantonments, require relaying. The water-supply was deficient in the hot weather and caused much inconvenience, especially in the hospital. It was remedied by bringing in water from the “Ganges escape canal”. It was said that during the rains the pipe water contained the *bacillus coli*, and all drinking water was boiled till the municipal filters were put in proper order. A proposal was made to the Cantonment Committee that the supply to Cantonments should be separate and continuous but there was a difficulty in giving effect to it for financial reasons. The drainage of the bazaars requires remodelling and more *pucca* drains should be provided.

TABLE V--*continued.*

ABSTRACT of the CANTONMENT SANITARY REPORTS of the most UNHEALTHY STATIONS, SANITARY DEFECTS, IMPROVEMENTS, SUGGESTIONS, etc.—contd.

The Cantonment Committee make the following suggestions :—

- (1) the removal of the Sullage Farm across the river ;
- (2) that arrangements be made for pumping out the water from the moat of the Fort ;
- (3) that surface drains be cleared before the breaking of the monsoon; rank vegetation be cleared throughout the rains ; and the growing of grass for hay in compounds and by the Grass Farm, also high standing crops by the latter, be prohibited under Section 101, Cantonment Code, 1899 ;
- (4) that tanks and depressions be filled up,—if money is not available at once to complete this work, a certain amount to be set aside yearly for the purpose.

They advocate the removal of the Grass and Dairy Farms from the cantonment ; and state that a sum of money to improve the surface drains will be allotted in the next revised budget estimate.

The Principal Medical Officer of the 7th (Meerut) Division remarks that the surface drainage generally is defective and that absorption gardens would assist in this connection ; also that tanks and hollows, the breeding places of mosquitoes, should be filled in and the Grass and Dairy Farms removed from cantonments. The main surface drain west of Lawrence road is foul smelling, and the roads in cantonments do not appear to be sufficiently watered. The cantonment slaughter-house is in a bad situation, the slaughter racks are unprotected and there is no fly-proof hanging shed. He considers that the Sullage Farm, situated, as it is, close to the Fort must always be a foul nuisance and a danger to health.

The General Officer Commanding the division states that such measures as are practicable, and for which money is available, will be carried out.

SOUTHERN ARMY.

Nasirabad.—The surface drainage is defective and breeding grounds for flies and mosquitoes exist either within or in the vicinity of cantonments, but steps are being taken to improve matters by enforcing sanitary regulations.

The Senior Medical Officer makes the following suggestions :—

- (1) Improvement of the surface drainage of the cantonment ;
- (2) Levelling up the bed of the *nullah* west of barracks, and construction of a shallow cement drain along the centre of it ;
- (3) Gradual levelling up of the deepest parts of the quarries, especially the one between the barracks and the railway station ;
- (4) Improvement of the course and levelling up the bed of the *nullah* between the officers' bungalows and the bazaar, also filling in the shallow tanks in the vicinity ;
- (5) The constant stocking with small fish of the deep tanks ;
- (6) The replacement by a pump of the *charsas* drawn by bullocks at the Danta well.

The Principal Medical Officer of the 5th (Mhow) Division concurs with the above suggestions.

The General Officer Commanding the Nasirabad Brigade also concurs and is of opinion that the use of incinerators should be extended as much as possible and that a more ample piped water-supply is required.

Neemuch.—The supply of water from the wells is often deficient in the hot weather.

The Cantonment Committee and the Principal Medical Officer of the 5th (Mhow) Division offer no suggestions.

The General Officer Commanding the Nasirabad Brigade remarks that the sanitary conditions are satisfactory and that the general use of incinerators in lieu of trenches is desirable and will be introduced gradually.

Jhansi.—The surface drainage is fairly satisfactory, the *nullahs*, however, which run through the cantonment allow of the lodgment of water in pools, but the matter is receiving attention. The water-supply is from wells, but a piped water-supply is very desirable and could be obtained in conjunction with the Municipality.

The Cantonment Committee state that as there is no really suitable entrenching land within the present limits of cantonments, the acquisition of the 345 acres already proposed is very desirable.

The Principal Medical Officer of the Jubbulpore and Jhansi Brigades considers that, on the whole, the sanitation of the cantonment is good.

Jubbulpore.—A pond exists in No. 7 compound, outside cantonments and its vicinity, which cannot be drained and is too large to fill up ; there is another pond in the Mission compound and borrow pits along the railway boundary, but the two defects last named are outside the Cantonment Committee's jurisdiction. The supply of piped water to the Station Hospital is often deficient in the hot weather. The very insanitary village of Gorakhpore is on the border of cantonments; the trenching grounds are in black cotton soil, which cannot be properly pulverised and flies are bred in large numbers and follow the carts back to barracks. Incinerators are being tried and if not successful, the trenches will be moved to a more suitable site. The fields in the vicinity of barracks are irrigated with liquid sewage from the Shah *nullah* and manured with the sweepings from the roads and Suddar bazaar, in which flies are also bred, but a promise has been made to stop this insanitary practice. The Shah *nullah*, which is the main drain of the Suddar bazaar, is practically an open sewer and is one of the main mosquito breeding grounds in the cantonment ; money has been granted to make a masonry drain in the bottom of the *nullah* but the scheme as now adopted will, it is feared, entail an annual expenditure after the rains. In the bed of the Pachpuri *nullah*, which is included in the cantonment, since its enlargement, are many borrow pits which are ideal breeding grounds for mosquitoes, but arrangements to fill up, and drain them, as far as possible, will be made.

The cantonment Committee make no suggestions.

The Principal Medical Officer of the Jubbulpore and Jhansi Brigades remarks that the majority of the general sanitary defects referred to above, exist from want of funds to remedy them. The deposit of bazaar sweepings in the centre of the cantonment and in the Suddar bazaar is absolutely without excuse, as the danger is positive and no financial consideration should stand in the way of dealing with it. He considers that the incinerators now at work and others soon to be started will do much good, as they mitigate a danger and by saving expense will provide for other sanitary measures. He adds that Cantonment Committees unfortunately expect incinerators to work wonders and are apt to be disappointed if they do not obviate all evils at a minimum of expense. At the Supply and Transport slaughter-house, blood and water passes down an open channel in the ground and he thinks that all fluids should be collected in a receptacle and carried away by cart, as decomposing blood in the soil encourages flies. The deposit of filth in the trenches not far from the dairy and Station Hospital has been stopped.

The General Officer Commanding the Jubbulpore Brigade remarks that the Jubbulpore Cantonment funds suffer from its being an expensive station for officers in the way of rents and labour, and that the garrison has been much increased without any proportionate increase of revenue, which leaves it dependent for necessities on grants from Government, so that there is little available for improvements. He hopes that the Local Government may agree to increase the proportion of *octroi* now received. He adds that the area of cantonments and land revenue is small for the garrison and more land will be taken up for Government buildings ; also that the evil of manuring with bazaar rubbish has been stopped, the increased expense being recognised as absolutely necessary.

TABLE V--*concluded.*

ABSTRACT of the CANTONMENT SANITARY REPORTS of the most UNHEALTHY STATIONS, SANITARY DEFECTS, IMPROVEMENTS, SUGGESTIONS, etc.—concl'd.

Colaba.—A marsh exists on the north-west side of the British Infantry lines, which is a mosquito-breeding ground. Measures were taken to destroy larvæ and a beginning made to fill up depressions with waste building material.

The Cantonment Committee make no suggestions.

The Principal Medical Officer of the Bombay Brigade remarks that as funds are forthcoming existing defects are dealt with. The chief of these are :—(1) the marshy ground on the foreshore, for which reclaiming is the only remedy; (2) the insanitary chawls; (3) the officers' quarters, which are very old, ill-constructed and obsolete. He considers that an expenditure of a comparatively small sum would make this station the healthiest site on the plains of India, and such expenditure could be met by the disposal of Government lands in Bombay—the Town Barracks for instance—which are useless and insanitary. He concludes by saying that Committees have assembled from time to time and the whole question of the location of troops in Bombay has been discussed for many years back but no result follows; that it is practically certain if the matter were thoroughly taken in hand, the whole of the garrison could be accommodated in Colaba, very much to their benefit and at no cost whatever; on the contrary Government would make money out of it.

The General Officer Commanding the Bombay Brigade states that the British Infantry officers quarters are insanitary and a discredit to Government and should certainly be rebuilt.

Ahmednagar.—The fields round Bhingar and Wadarwali villages are freely used as latrines, and that between the latter village and Northcote road, which the British troops pass daily on their way to the range is particularly offensive, as there are no latrines in this village. The "busti" known as "Old horse-holders lines" between Framji's bungalow and the Section hospital has been razed and the ground cleared, the owner receiving compensation.

The Cantonment Committee suggest that latrines are urgently required in the Wadarwali village, and the Principal Medical Officer endorses the suggestion.

Bellary.—Two large tanks are close to the cantonments and the Fort ditch contains water which is used by the native population, but in view of the small rainfall and the usual scarcity of water, these are a necessity. The water-supply for the troops is obtained from unprotected wells,—the quantity is small in the hot weather, the quality fair; all are liable to contamination from dust. No local action can be taken for want of funds.

The Cantonment Committee suggest,—(a) the protection of No. 2 well from pollution by providing a suitable roof, and (b) the improvement of the Allipore tank catchment area by acquiring two villages and planting forest on the now cultivated area; but add that effect cannot be given to the suggestions unless funds are sanctioned for which estimates will be furnished.

The Principal Medical Officer of the Bangalore and Southern Brigades repeats the suggestion he made last year, *viz.* :—that the deep well from which the drinking water is obtained should either be satisfactorily covered in or the pump removed from over the mouth to one side.

The General Officer Commanding the Bangalore Brigade concurs with the opinion expressed by the Principal Medical Officer and adds that the question was gone into in greater detail in correspondence between that officer and the Assistant Commanding Royal Engineer.

Madras.—There has been no alteration during the past year in the drainage of the Fort and surroundings. The civil population of the City is now having installed a sewerage system in which it is proposed the Fort should join. The Fort ditch remains a constant source of mosquitoes and smells, but all suggestions to fill it in are met with the objection of great cost. A plan of covering it with aquatic plants to kill the mosquito larvae is under consideration. The Fort contains no native habitations but the usual defects in sanitation exist in the surrounding city and bazaars which are much patronized by the soldiers.

The Cantonment Committee suggest the installation of a complete sewerage system, and also the filling up of the Fort moat.

The Principal Medical Officer of the 9th (Secunderabad) Division remarks that the general health conditions during the year have been fair; and that the proposal to replace the present system of sewage removal by a piped system has been recommended and is under consideration, the introduction of which should be a decided improvement.

The Officer Commanding the Madras Brigade states that the only improvement which can be effected in sanitary surroundings are those involving considerable expenditure, *e. g.*, participation in the local sewerage scheme and the filling in of the Fort ditch.

Thayetmyo.—The latrines and urinaries are too near the cook-houses and barrack rooms, but estimates are being prepared for their removal to a further distance and to make them fly-proof with impervious floors.

The Cantonment Committee are of opinion that the re-siting of the latrines and urinaries is an urgent matter and should be carried out without delay.

The Officer Commanding the Rangoon Brigade remarks that in view of the intended abandonment of the station it seems undesirable to incur any great expense on alterations involving the erection of permanent buildings which can be wanted for a very few years only. He is calling for a site plan showing the position of the barracks in occupation and their subsidiary buildings, so as to see what can be done to remedy the defects, and adds that speaking generally the Cantonment appears well kept.

Maymyo.—The drainage is being improved.

The Cantonment Committee offer no suggestions.

The Principal Medical Officer remarks that increased drainage and incineration are most needed.

The General Officer Commanding the Mandalay Brigade states that though the admissions to hospital for malaria have been more, the health of the men certainly shows an improvement over previous years which he hopes will continue, as the vegetation and swamps are cleared further away from the vicinity of the British Infantry lines. He cordially approves of the proposed use of incinerators in place of septic tanks, if only on the grounds that several useful streams will no longer be polluted.

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TABLE VI.

*INFLUENZA by months, stations, groups,
and armies.*

STATIONS* AND GROUPS.	ADMISSIONS FROM INFLUENZA IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Thayetmyo . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP II.—BURMA INLAND	...	...	...	...	...	...	...	...	...	...	...	...	...
Forts William, Fulta and Chingri Khal . . . . .	...	...	1	...	...	...	...	...	...	...	...	1	2
GROUP IV.—BENGAL AND ORISSA . . . . .	...	...	1	...	...	...	...	...	...	...	...	1	2
B	...	...	...	...	...	...	...	...	...	...	...	...	...
Dinapore . . . . .	...	...	...	...	...	...	...	...	11	22	...	...	33
Allahabad and Fort . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Fyzabad . . . . .	...	...	...	...	...	...	5	...	...	...	...	...	5
Sitapur . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	1
Lucknow . . . . .	...	...	2	1	...	...	...	...	1	...	...	...	4
Cawnpore . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR . . . . .	...	...	2	1	...	...	...	5	...	13	22	...	43
A	...	...	...	...	...	...	...	...	...	...	...	...	...
Shahjehanpur	4	3	...	...	...	...	...	...	...	...	...	...	7
Bareilly . . . . .	...	...	...	...	...	...	20	2	1	...	...	3	26
Rurki	3	...	...	...	...	1	...	...	...	...	1	1	6
Meerut	8	6	...	2	...	3	5	15	...	...	...	1	40
Ambala	8	6	5	...	...	...	...	...	...	...	...	...	19
B	...	...	...	...	...	...	...	...	...	...	...	...	...
Jullundur	1	...	...	...	...	...	...	...	...	...	...	...	1
Amritsar . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Lahore Cantonment and Fort Sialkot	2	...	1	6	3	...	22	33	11	4	...	...	82
Rawalpindi	4	...	...	3	...	...	...	1	...	...	...	4	12
Campbellpore and Attock . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP VI.—UPPER SUB-HIMALAYA	30	15	6	11	3	5	47	51	12	4	1	9	194
A	...	...	...	...	...	...	...	...	...	...	...	...	...
Nowshera	3	...	...	...	...	...	...	...	...	...	...	...	3
Peshawar . . . . .	...	1	3	17	6	1	5	47	18	...	...	...	98
C	...	...	...	...	...	...	...	...	...	...	...	...	...
Hyderabad . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Karachi	1	...	...	...	...	...	...	...	...	...	...	...	1
GROUP VII.—NORTH-WEST FRONTIER, INDUS VALLEY, AND NORTH-WESTERN RAJPUTANA	4	1	3	17	6	1	5	47	18	...	...	...	102
B	...	...	...	...	...	...	...	...	...	...	...	...	...
Muttra	2	3	...	...	...	...	...	...	...	...	...	...	5
Agra and Fatehgarh	3	3	2	3	1	...	2	...	...	...	...	...	14
GROUP VIII.—SOUTH-EASTERN RAJPUTANA, CENTRAL INDIA, AND GUJARAT	5	6	2	3	1	...	2	...	...	...	...	...	19
A	...	...	...	...	...	...	...	...	...	...	...	...	...
Saugor . . . . .	...	...	2	...	...	...	...	...	...	...	...	...	2
Jubbulpore . . . . .	...	...	7	4	4	1	1	...	...	...	...	...	17
B	...	...	...	...	...	...	...	...	...	...	...	...	...
Secunderabad . . . . .	...	...	...	...	1	...	...	...	...	...	1	...	2
Kirkee . . . . .	...	...	1	1	...	...	...	...	...	1	1	...	4
Ahmednagar	4	...	2	...	...	...	...	...	...	...	...	...	6
GROUP IX.—DECCAN	4	...	12	5	5	1	1	...	...	1	2	...	31

TABLE VII.

*CHOLERA by months, stations, groups,
and armies.*

[illegible]

* Stations where neither Influenza nor Cholera occurred are not shown in these tables. For the annual ratios, see Table III.

STATIONS,* GROUPS AND ARMIES.	ADMISSIONS FROM INFLUENZA IN EACH MONTH.													ADMISSIONS FROM CHOLERA IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
A																										
Bellary . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
B																										
Madras and Poonamalee . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP XI.—SOUTHERN INDIA	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	1
Chakrata . . . . .	...	...	...	14	5	1	3	3	3	2	...	...	31	...	...	...	...	...	...	...	...	...	...	...	...	...
Subathu . . . . .	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	1	...	2	...	...	...	...	3
Kalabagh and Baragali . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	2
Barain Camp and Khairagali . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1
Khan Spur . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cherat . . . . .	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP XIIa.—HILL STA- TIONS . . . . .	...	...	...	14	6	1	4	3	3	2	...	...	33	...	...	...	...	1	1	...	2	1	...	1	...	6
Naini Tal . . . . .	...	...	...	...	...	1	...	...	...	1	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Kasauli	1	...	...	...	...	...	1	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Murree . . . . .	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Wellington . . . . .	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP XIIb.—HILL CON- VALESCENT DEPÔTS, AND SANITARIA	1	...	...	...	...	2	1	1	...	1	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...
Troops, marching, India . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Mohmand Field Force . . . . .	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	50	...	...	...	...	...	...	...	50
INDIA	44	23	26	51	22	10	60	107	33	21	25	11	433	...	...	...	...	68	11	3	7	3	...	1	...	93
NORTHERN ARMY	39	22	14	46	16	8	59	107	33	20	23	10	397	...	...	...	...	14	11	1	6	3	...	1	...	36
SOUTHERN „	5	1	12	5	...	2	1	...	...	1	2	...	34	...	...	...	...	4	...	2	1	...	...	...	...	7

* Stations where neither Influenza nor Cholera occurred are not shown in these tables. For the annual ratios, see Table iii.

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TABLE VIII.

ENTERIC FEVER by months, stations, groups,
and arm es.

TABLE IX.

PYREXIA OF UNCERTAIN ORIGIN by months, stations,
groups, and armies.

STATIONS* AND GROUPS.	ADMISSIONS FROM ENTERIC FEVER IN EACH MONTH.												ADMISSIONS FROM PYREXIA OF UNCERTAIN ORIGIN IN EACH MONTH.													
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Rangoon and Port Blair . . . . .	...	...	...	...	...	1	...	...	...	...	...	1	2	14	5	6	1	5	3	9	14	13	12	10	13	105
GROUP I.—BURMA COAST AND BAY ISLANDS . . . . .	...	...	...	...	...	1	...	...	...	...	...	1	2	14	5	6	1	5	3	9	14	13	12	10	13	105
Thayetmyo . . . . .	...	...	1	...	...	1	2	1	1	2	2	...	10	9	5	21	34	8	6	6	4	11	1	...	1	106
Meiktila . . . . .	...	...	...	...	...	...	...	...	...	1	...	...	1	2	...	...	...	...	...	1	...	1	2	...	...	6
Fort Dufferin (Mandalay) . . . . .	...	...	1	...	1	...	...	...	...	...	...	1	3	...	...	1	2	3	...	...	3	4	...	...	...	13
Shwebo . . . . .	...	...	...	...	...	...	3	2	2	...	...	...	7	3	4	1	2	...	...	5	3	5	1	...	...	24
Bhamo . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	2	4	...	2	2	9
GROUP II.—BURMA INLAND.	...	...	2	...	1	1	5	3	3	3	2	1	21	14	9	23	39	11	7	12	12	22	4	2	3	158
Forts William, Fulta and Chingrikhal	1	...	...	2	...	...	1	1	1	...	...	...	6	9	1	6	9	13	33	50	96	35	9	...	...	261
Dum Dum . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Barrackpore . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	3	21	9	...	...	...	34
GROUP IV.—BENGAL AND ORISSA	1	...	...	2	...	...	1	1	1	...	...	...	6	9	1	7	10	13	33	53	117	44	9	...	...	296
B	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dinapore . . . . .	...	...	...	...	3	...	1	...	...	1	...	...	5	4	5	2	11	8	32	24	11	3	3	16	1	120
Benares	2	...	2	2	...	...	...	1	...	...	...	...	7	...	1	3	3	...	10	5	...	2	...	...	...	24
Allahabad and Fort Fyzabad . . . . .	...	...	2	2	...	...	...	2	1	...	...	...	7	...	...	24	44	40	59	48	16	13	40	35	12	331
Sitapur . . . . .	...	...	...	1	7	...	...	1	...	...	...	...	16	...	4	8	9	6	9	10	9	14	1	...	...	70
Lucknow . . . . .	...	1	5	10	1	...	1	...	...	...	...	...	18	5	1	3	12	5	6	2	5	9	6	2	...	56
Cawnpore . . . . .	...	...	3	4	8	4	1	2	5	1	6	...	35	...	5	11	14	17	34	28	6	20	10	3	...	148
	...	...	...	...	9	4	1	6	5	2	...	...	27	2	...	2	8	7	5	14	17	37	30	17	6	145
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR	2	2	12	19	28	8	4	12	11	4	6	7	115	11	16	53	101	83	155	131	64	98	90	73	19	894
A	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Shahjehanpur . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	4	3	3	3	2	4	4	1	...	25
Bareilly . . . . .	...	...	...	...	1	1	...	...	...	1	1	...	4	1	1	...	1	...	2	3	24	72	98	15	4	221
Rurki . . . . .	...	...	...	...	2	...	...	3	...	...	...	...	5	...	...	1	...	2	3	1	8	20	1	1	...	37
Meerut	1	...	1	6	10	7	1	1	2	11	13	1	54	...	...	...	...	1	7	2	...	...	...	...	...	10
Delhi . . . . .	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	1	1	2	4	...	...	...	...	...	...	8
Ambala	1	3	6	2	3	...	1	...	1	1	1	...	19	...	...	...	1	...	3	4	...	...	5	...	8	21
B	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Jullundur . . . . .	...	...	...	2	1	...	...	4	2	...	...	...	9	...	1	3	1	...	3	3	4	...	...	1	...	16
Ferozepore . . . . .	...	...	...	...	...	3	2	2	1	...	1	...	9	6	14	17	36	22	31	58	30	29	15	14	5	277
Amritsar . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1	2	2	9	...	...	...	...	16
Lahore Cantt. and Fort Sialkot . . . . .	...	2	1	...	2	...	...	3	1	...	...	2	11	1	1	3	21	13	10	20	22	9	1	...	102	
Rawalpindi	3	7	5	2	...	1	...	1	3	4	1	...	27	1	11	6	...	6	9	9	2	12	30	1	1	88
Campbellpore and Attock	1	5	...	5	10	17	2	7	26	13	5	2	93	2	2	4	14	21	31	6	...	2	...	4	...	86
	...	...	1	1	...	1	2	2	2	4	...	1	14	8	2	5	5	6	5	2	4	8	9	8	...	62
GROUP VI.—UPPER SUB-HIMALAYA	6	17	14	18	29	30	9	23	38	34	22	6	246	19	33	42	84	77	113	113	105	156	163	45	19	969
A	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nowshera . . . . .	...	...	1	...	6	6	...	4	...	...	...	...	17	1	...	2	10	31	84	69	61	43	118	13	9	441
Peshawar	1	...	10	5	13	8	2	6	6	1	...	...	52	1	...	...	5	103	165	105	84	27	3	15	3	511
Multan . . . . .	...	...	...	5	11	4	2	...	...	...	...	...	22	...	2	2	1	2	1	9	13	1	3	4	1	39
C	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Karachi . . . . .	...	...	1	...	...	...	...	1	4	...	1	...	7	8	10	2	5	2	1	3	1	1	4	1	1	39
GROUP VII.—NORTH-WEST FRONTIER, INDUS VALLEY, AND NORTH-WESTERN RAJPUTANA	1	...	12	10	30	18	4	11	10	1	1	...	98	10	12	6	21	138	251	186	159	72	128	33	14	1,030

* Stations where neither Enteric Fever nor Pyrexia of uncertain origin occurred are not shown in these tables. For the annual ratios, see Table III.

STATIONS* AND GROUPS.	ADMISSIONS FROM ENTERIC FEVER IN EACH MONTH.												ADMISSIONS FROM PYREXIA OF UNCERTAIN ORIGIN IN EACH MONTH.													
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
B																										
Neemuch . . . . .	...	...	...	...	3	...	...	1	...	1	...	1	6	...	...	...	...	...	...	...	...	...	...	...	...	...
Nasirabad . . . . .	...	...	...	...	1	...	...	1	1	...	...	1	4	...	...	...	...	...	...	...	1	1	...	...	...	2
Muttra . . . . .	...	...	...	...	...	...	...	1	1	...	...	...	2	1	2	1	4	3	1	4	15	39	32	46	5	153
Agra and Fategarh	3	...	...	...	...	...	...	1	2	...	2	1	9	1	1	...	2	7	7	9	33	32	3	14	3	112
Jhansi . . . . .	...	...	1	...	1	...	...	1	5	5	14	...	27	...	2	...	...	1	7	18	4	...	21	13	2	68
Nowgong . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	4	3	6	8	1	1	...	...	...	...	26
Mhow and Indore . . . . .	...	...	...	...	1	1	...	1	2	2	...	...	7	6	10	2	2	7	6	4	5	...	...	...	1	43
GROUP VIII.—SOUTH-EASTERN RAJPUTANA, CENTRAL INDIA, AND GUJARAT	3	...	1	...	6	1	...	6	11	8	16	3	55	10	16	7	11	24	29	36	59	72	56	73	11	404
A																										
Saugor	1	...	...	2	...	...	1	...	...	...	...	...	4	...	...	...	2	...	...	...	5	3	5	...	...	15
Jubbulpore . . . . .	...	...	4	11	5	2	2	4	5	...	1	1	35	...	1	...	...	3	23	6	2	3	2	3	...	43
Kampti	2	...	1	1	...	...	...	4	3	...	...	...	11	2	...	1	...	2	8	19	6	5	...	...	48	
B																										
Secunderabad	7	4	3	5	2	...	2	24	18	7	3	5	80	13	10	26	17	12	10	19	13	17	10	15	7	169
Belgaum	2	...	5	2	...	...	2	1	3	...	...	...	15	2	...	10	8	5	3	...	2	3	6	3	3	45
Poona . . . . .	...	...	2	...	1	1	3	10	1	...	1	...	19	3	4	4	6	8	21	14	1	4	10	4	4	83
Kirkee . . . . .	...	...	...	...	...	...	...	8	2	...	...	1	11	...	1	1	7	...	1	...	...	...	...	...	...	10
Ahmednagar	1	...	...	...	2	...	...	...	9	2	...	1	15	4	1	7	4	5	6	5	2	...	1	2	...	37
GROUP IX.—DECCAN	13	4	15	21	10	3	10	51	41	9	5	8	190	24	17	49	44	35	72	63	31	35	39	27	14	450
Colaba (Bombay) and Khandalla . . . . .	...	...	...	...	1	...	...	...	...	...	1	...	2	...	1	1	1	2	...	...	...	...	...	...	...	5
Cannanore, Calicut and Malapuram . . . . .	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	1	1	...	1	...	...	3
GROUP X.—WESTERN COAST . . . . .	...	...	...	...	1	...	...	1	...	...	1	...	3	...	1	1	1	2	...	...	1	1	...	1	...	8
A																										
Bellary . . . . .	...	...	...	...	...	8	...	...	...	...	...	...	...	1	...	1	1	1	...	...	...	...	...	...	...	4
Bangalore	2	1	...	...	...	8	4	6	7	3	1	11	43	...	1	5	6	2	3	12	4	8	6	8	6	61
B																										
St. Thomas' Mount . . . . .	...	...	...	...	...	...	...	...	...	1	...	...	1	...	1	...	...	...	...	4	2	2	6	...	...	15
Madras and Poonamallee	3	1	2	...	...	2	...	...	...	...	...	...	8	...	...	1	2	2	3	1	13	16	27	8	74	
GROUP XI.—SOUTHERN INDIA	5	2	2	...	...	10	4	6	7	4	1	11	52	1	2	7	9	5	6	17	7	23	28	35	14	154
Ranikhet and Chaubuttia . . . . .	...	...	...	5	4	4	6	2	...	2	...	...	23	...	...	...	4	3	1	9	2	3	...	1	...	23
Chakrata . . . . .	...	...	...	3	1	...	...	...	2	...	...	...	6	...	...	1	...	...	2	2	1	2	...	...	...	8
Lebong . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	5	...	2	5	3	2	4	1	...	1	5	1	29
Solon . . . . .	...	...	...	...	2	1	1	2	1	...	...	...	7	...	...	...	...	1	1	1	1	...	...	...	...	4
Dagshai . . . . .	...	...	...	...	...	1	...	...	...	1	...	...	2	...	...	6	4	3	10	4	6	9	5	3	...	50
Subathu . . . . .	...	...	...	...	16	2	1	3	...	1	...	...	23	...	...	...	...	...	...	...	1	...	...	...	...	1
Jutogh . . . . .	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	1
Kuldana . . . . .	...	...	...	...	...	1	...	...	...	1	...	...	2	...	...	...	...	1	6	...	...	...	...	...	...	7
Kalabagh and Baragali . . . . .	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	1	2	...	1	...	...	4
Camp Gharial . . . . .	...	...	...	1	6	8	1	...	...	...	...	...	16	...	...	...	1	10	18	...	...	1	...	1	...	31
Barian and Khairagali . . . . .	...	...	...	...	4	4	...	...	...	...	...	...	8	...	...	...	...	3	...	...	...	...	1	...	...	4
Khan Spur . . . . .	...	...	...	...	1	...	1	1	...	...	...	...	3	...	...	...	...	4	2	...	...	...	...	...	...	6
Cherat . . . . .	...	...	...	...	3	3	2	3	3	...	1	...	15	...	...	...	...	7	13	3	10	1	...	1	...	35
Quetta . . . . .	...	...	...	...	...	1	1	11	21	6	1	1	42	4	1	...	2	...	2	3	4	4	5	...	1	26
Maymyo . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	5	1	4	2	5	4	5	4	9	4	5	1	49
GROUP XIIa.—HILL STATIONS . . . . .	...	...	...	9	37	25	14	22	27	12	2	1	149	14	2	13	18	37	65	30	33	28	18	17	3	278
Darjeeling . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	1	...	1	1	1	...	3	4	1	1	1	...	...	13
Naini Tal . . . . .	...	...	...	...	...	...	1	2	...	...	...	...	3	...	...	...	...	3	2	...	4	6	...	1	...	1
Landour . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	16
Kasauli . . . . .	...	...	...	3	...	...	1	...	...	...	...	...	4	...	...	...	...	3	4	...	...	2	1	1	...	11
Dalhousie . . . . .	...	...	...	1	3	2	1	1	...	1	...	...	9	...	...	...	...	2	6	2	...	1	1	...	1	13
Murree and Lower and Upper Topas . . . . .	...	...	...	...	1	3	...	7	1	2	...	...	14	...	...	...	...	1	4	1	3	1	...	...	...	10
Mount Abu . . . . .	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Pachmarhi . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	2
Purandhar . . . . .	...	...	...	...	1	1	1	...	1	1	1	...	6	...	...	...	2	...	...	...	1	...	...	...	...	3
Wellington . . . . .	...	...	...	1	...	1	...	1	...	...	...	...	3	...	1	...	...	1	...	...	...	2	...	...	...	4
GROUP XIIb.—HILL CONVALESCENT DEPÔTS AND SANITARIA . . . . .	...	...	...	5	5	8	4	11	3	4	1	...	41	...	2	1	4	11	20	7	9	13	3	2	1	73

* Stations where neither Enteric Fever nor Pyrexia of uncertain origin occurred are not shown in these tables. For the annual ratios, see Table III.

TABLE VIII—concluded.

ENTERIC FEVER by months, stations, groups, and armies.

TABLE IX—concluded.

PYREXIA OF UNCERTAIN ORIGIN by months, stations, groups, and armies.

STATIONS,* GROUPS AND ARMIES.	ADMISSIONS FROM ENTERIC FEVER IN EACH MONTH.													ADMISSIONS FROM PYREXIA OF UNCERTAIN ORIGIN IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Troops, marching, India	...	1	...	2	...	1	...	...	...	...	7	7	18	1	7	...	9	...	...	...	...	2	...	9	15	43
Mohmand Field Force	...	...	...	...	3	...	...	...	...	...	...	...	3	...	...	...	...	18	1	...	...	...	...	...	...	19
EXTRA INDIA.																										
Aden	...	...	...	...	...	...	1	...	...	...	1	...	2	1	...	3	8	11	68	64	28	12	12	8	...	215
INDIA	31	26	58	86	150	106	56	147	152	79	65	45	1,001	128	123	218	360	470	823	721	639	591	562	335	126	5,096
NORTHERN ARMY	13	19	37	62	128	85	34	69	67	48	31	14	607	48	56	117	232	360	638	522	525	466	433	224	61	3,682
SOUTHERN "	18	6	21	22	19	20	22	78	85	31	27	24	373	79	60	101	119	92	184	199	114	123	129	102	50	1,352

* Stations where neither Enteric Fever nor Pyrexia of uncertain origin occurred are not shown in these tables. For the annual ratios, see Table III.

EUROPEAN TROOPS, 1908.

TABLE X.

MALARIA by months, stations, groups, and armies.

TABLE XI.

PNEUMONIA by months, stations, groups, and armies.

STATIONS* AND GROUPS.	ADMISSIONS FROM MALARIA IN EACH MONTH.													ADMISSIONS FROM PNEUMONIA IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Rangoon and Port Blair	24	24	19	4	13	7	9	7	2	1	2	7	119	...	...	...	...	...	...	1	...	...	...	...	...	1
GROUP I.—BURMA COAST AND BAY ISLANDS . . .	24	24	19	4	13	7	9	7	2	1	2	7	119	...	...	...	...	...	...	1	...	...	...	...	...	1
Thayetmyo . . . .	...	...	7	3	1	3	2	...	...	1	2	2	21	...	...	...	...	...	...	...	...	...	...	...	...	...
Meiktila . . . .	...	1	3	...	...	1	...	...	...	2	...	...	7	...	...	...	1	...	...	...	...	...	...	...	...	1
Fort Dufferin (Mandalay) . . .	...	4	...	1	...	...	...	...	3	...	1	1	10	...	...	...	...	...	...	...	...	...	...	...	...	...
Shwebo	3	2	3	2	2	4	2	2	1	10	1	2	34	...	...	2	...	...	...	...	...	...	...	...	...	2
Bhamo . . . .	...	...	...	1	...	7	11	1	5	3	4	4	36	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP II.—BURMA INLAND . . .	3	7	13	7	3	15	15	3	9	16	8	9	108	...	...	2	1	...	...	...	...	...	...	...	...	3
Forts William, Fulta and Chingrikhal . .	10	7	7	3	6	12	15	10	5	17	45	30	167	1	...	...	1	...	...	...	...	...	...	...	...	2
Dum-Dum	1	...	...	...	...	1	1	2	3	...	3	2	13	...	...	...	1	...	2	...	...	1	...	...	...	4
Barrackpore	4	...	...	2	1	2	4	1	6	15	26	6	67	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP IV.—BENGAL AND ORISSA . .	15	7	7	5	7	15	20	13	14	32	74	38	247	1	...	...	2	...	...	2	...	1	...	...	...	6
B																										
Dinapore	1	2	...	...	...	15	10	1	4	21	5	4	63	2	1	...	...	1	...	...	...	...	1	...	1	6
Benares . . . .	...	...	...	...	...	2	2	...	1	23	7	4	39	...	...	...	...	...	...	...	...	...	...	...	...	...
Allahabad and Fort .	7	1	1	1	...	1	...	...	42	41	27	15	140	4	1	2	...	...	2	...	...	2	...	...	...	11
Fyzabad	2	1	...	1	2	5	16	9	19	107	84	17	263	1	...	...	...	...	...	...	...	1	...	...	...	2
Sitapur . . . .	...	...	...	2	1	2	8	2	9	27	26	4	81	...	...	...	...	...	1	...	...	...	...	2	...	3
Lucknow	10	2	2	1	9	7	10	...	23	27	18	11	120	2	2	2	...	...	1	1	2	...	2	...	1	13
Cawnpore . . . .	...	...	1	8	16	22	8	19	52	31	30	14	201	1	...	...	1	...	...	...	...	...	3	2	...	7
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR .	20	6	4	13	28	54	54	35	150	277	197	69	907	10	4	4	1	1	3	2	2	2	4	3	6	42
A																										
Shahjehanpur . . .	...	...	1	...	...	2	6	17	21	22	4	3	76	1	...	...	...	...	...	...	...	...	...	...	...	1
Bareilly	1	...	6	6	5	6	12	56	78	99	61	7	337	1	...	...	...	2	1	...	...	...	...	...	1	5
Rurki	21	2	...	...	2	...	1	4	23	48	10	7	118	...	...	...	...	...	...	...	...	...	...	...	...	...
Meerut	42	40	42	46	53	76	61	170	602	585	283	76	2,076	4	...	...	...	4	1	...	...	...	...	...	...	9
Delhi	5	4	2	1	...	8	10	48	29	25	74	39	248	...	...	...	...	...	...	...	...	...	...	...	...	...
Ambala	3	2	5	1	...	2	5	21	108	115	63	39	368	7	...	1	...	...	...	...	...	...	1	...	4	13
B																										
Jullundur	6	6	2	1	3	1	1	4	23	21	26	82	176	1	1	1	...	...	...	...	...	...	...	...	...	3
Ferozepore	18	9	15	11	7	25	20	70	143	133	121	118	700	5	2	1	1	...	...	...	...	...	...	...	...	9
Amritsar . . . .	...	2	...	...	...	1	1	23	38	26	21	8	120	...	...	...	...	...	...	...	...	...	...	...	...	...
Lahore Cantonment and Fort . . .	4	1	7	1	1	1	1	38	163	148	94	41	500	...	...	1	...	1	...	...	...	...	2	2	...	6
Sialkot	28	24	20	22	6	21	19	44	182	204	76	34	680	3	...	...	...	1	2	1	...	...	1	...	...	8
Rawalpindi	25	11	20	23	51	40	37	76	122	180	94	39	719	8	2	1	3	1	1	...	...	...	...	1	...	17
Campbellpore and Attock . . .	4	...	...	4	...	6	8	22	20	26	30	32	152	...	...	1	...	1	...	...	...	...	1	1	...	4
GROUP VI.—UPPER SUB-HIMALAYA . .	157	101	120	116	145	189	182	593	1,553	1,632	957	525	6,270	30	5	6	4	10	5	1	...	...	3	3	8	75
A																										
Nowshera	23	4	3	4	13	5	2	9	32	96	78	72	341	2	1	1	...	...	1	...	...	...	...	1	2	8
Peshawar	24	15	28	39	26	10	30	42	153	297	255	203	1,122	2	1	...	1	...	...	...	...	...	...	...	...	4
Multan	3	5	4	3	3	8	7	22	80	177	131	55	501	...	...	1	1	...	...	...	...	...	...	...	...	2
C																										
Hyderabad	12	14	12	9	9	13	5	14	37	62	81	31	299	1	...	...	...	...	2	1	1	...	...	2	...	7
Karachi	24	17	8	2	2	4	10	18	27	29	25	20	186	...	1	...	...	2	3	...	...	...	...	...	...	6
GROUP VII.—N.-W. FRONTIER, INDUS VALLEY AND N.-W. RAJPUTANA . .	86	55	55	57	53	40	54	105	329	661	575	381	2,449	5	3	2	2	2	6	1	1	...	...	3	2	27

* Stations where neither Malaria nor Pneumonia occurred are not shown in these tables. For the annual ratios, see Table III.

EUROPEAN TROOPS, 1908.

TABLE X—continued.

MALARIA by months, stations, groups, and armies.

TABLE XI—concluded.

PNEUMONIA by months, stations, groups, and armies.

STATIONS* AND GROUPS.	ADMISSIONS FROM MALARIA IN EACH MONTH.													ADMISSIONS FROM PNEUMONIA IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
B																										
Neemuch . . .	...	1	1	1	6	3	6	6	21	10	14	12	81	...	...	...	...	...	...	...	...	...	...	...	...	...
Nasirabad . . .	7	6	1	6	12	7	7	27	93	160	76	21	428	1	1	1	...	...	...	...	...	...	...	...	...	3
Muttra . . .	...	2	...	...	...	4	...	...	3	16	2	1	28	...	...	...	...	...	...	...	...	...	...	...	...	...
Agra and Fatehgarh	2	5	13	10	11	13	25	109	291	160	109	46	794	1	...	...	...	...	...	...	...	...	...	1	...	2
Jhansi . . .	8	2	4	2	6	5	1	22	76	48	56	29	259	...	1	...	1	...	...	...	...	...	...	2	...	4
Nowgong . . .	...	...	...	...	1	1	7	7	38	21	2	...	77	1	...	1	...	...	...	...	...	...	1	...	1	4
Mhow and Indore .	16	8	11	15	22	28	24	77	189	94	55	47	586	1	...	...	...	...	...	...	...	...	...	...	...	1
GROUP VIII.—S.-E. RAJPUTANA, CENTRAL INDIA, AND GUJARAT . . .	33	24	30	34	58	61	70	248	716	509	314	156	2,253	4	2	2	1	...	...	...	...	...	1	...	4	14
A																										
Saugor . . .	6	...	...	1	6	5	17	6	9	20	2	4	76	...	...	...	...	...	1	...	...	...	...	...	...	1
Jubbulpore . . .	12	10	10	7	6	7	35	61	110	118	85	32	493	2	1	...	...	...	2	...	1	...	...	1	...	7
Kampti . . .	5	4	11	12	14	34	25	23	62	48	5	6	249	...	...	...	...	...	...	...	...	...	...	1	...	1
B																										
Secunderabad . .	2	1	2	5	...	2	1	4	5	3	6	12	43	1	...	2	...	1	...	...	...	...	...	...	...	4
Belgaum . . .	3	...	3	1	2	2	15	5	1	3	4	3	42	...	...	1	...	...	...	1	...	...	...	...	...	2
Poona . . .	11	11	6	15	9	20	33	67	30	30	38	17	287	2	2	1	...	2	...	...	...	...	...	...	...	7
Kirkee . . .	...	1	2	6	8	14	17	11	13	16	10	8	106	4	6	...	1	...	...	...	...	...	...	1	...	12
Ahmednagar . . .	...	...	4	1	2	1	4	5	10	32	50	25	134	...	...	1	1	2	1	...	...	...	1	...	...	6
GROUP IX.—DECCAN . . .	39	27	38	48	47	85	147	182	240	270	200	107	1,430	9	9	5	2	5	4	1	1	...	1	1	2	40
Colaba (Bombay) and Khandalla . . .	12	2	10	18	18	9	49	33	48	121	49	23	392	1	...	...	...	...	...	1	...	...	...	...	...	2
Cannanore, Calicut and Malapuram . . .	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP X.—WESTERN COAST . . .	12	2	10	19	18	9	49	33	48	121	49	23	393	1	...	...	...	...	...	1	...	...	...	...	...	2
A																										
Bellary . . .	7	14	10	4	3	3	5	4	8	12	5	2	77	...	...	...	...	...	...	...	...	...	...	...	...	...
Bangalore . . .	2	6	5	6	15	22	11	9	10	1	2	5	94	2	...	1	...	...	...	...	...	...	...	...	...	3
B																										
St. Thomas' Mount.	...	...	...	...	...	...	1	2	5	1	...	...	9	...	...	...	...	...	...	...	...	...	...	...	...	...
Madras and Poona-mallee . . .	1	1	2	...	...	...	1	2	4	6	2	1	20	...	...	1	...	...	...	1	1	...	...	...	...	3
GROUP XI.—SOUTHERN INDIA . . .	10	21	17	10	18	25	18	17	27	20	9	8	200	2	...	2	...	...	...	...	1	1	...	...	...	6
Ranikhet and Chauttia . . .	...	...	4	17	18	6	20	10	18	8	7	...	108	...	...	...	1	1	...	...	...	...	...	1	...	3
Chakrata . . .	...	...	1	11	11	15	15	26	41	52	45	18	235	...	...	...	...	1	...	...	...	1	...	1	...	3
Lebong . . .	...	1	1	1	2	1	1	3	3	1	1	5	20	...	...	...	...	...	...	...	...	...	...	...	...	...
Solon . . .	...	...	...	...	2	1	2	7	7	4	...	...	23	...	...	...	1	...	...	1	...	...	...	...	...	2
Dagshai . . .	...	...	1	6	1	...	...	4	5	...	3	2	22	...	...	7	...	...	1	...	...	...	...	...	...	8
Subathu . . .	...	...	...	...	1	3	3	6	22	20	6	...	61	...	...	...	1	...	...	...	...	...	...	...	...	1
Jutogh . . .	...	...	...	4	3	2	2	3	6	2	1	...	24	...	...	...	...	...	...	...	...	...	...	...	...	...
Kuldana . . .	...	...	...	...	1	8	9	6	11	8	2	...	45	...	...	...	...	1	...	...	...	...	...	...	...	1
Kalabagh and Baragali . . .	...	...	...	...	...	1	...	...	1	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Camp Gharial . . .	...	...	...	...	2	2	6	11	3	9	...	...	33	...	...	...	...	...	...	...	...	...	...	...	...	...
„ Barian and Khairagali . . .	...	...	...	...	5	6	5	7	8	13	2	...	46	...	...	...	1	...	...	...	...	...	...	...	...	1
Khan Spur . . .	...	...	...	...	1	9	16	24	10	4	2	...	66	...	...	...	...	2	...	...	...	...	...	...	...	2
Cherat . . .	...	...	...	...	14	17	21	19	32	30	17	...	150	...	...	...	...	...	2	...	...	1	...	...	...	3
Quetta . . .	2	4	10	23	22	30	28	22	28	30	13	7	219	1	1	1	...	...	...	...	1	1	...	1	...	10
Maymyo . . .	4	2	6	13	13	26	32	30	17	19	18	4	184	...	...	...	...	...	1	...	...	...	...	...	...	1
GROUP XIIa.—HILL STATIONS . . .	6	7	23	75	96	128	160	178	212	200	117	36	1,238	1	1	8	3	3	3	5	...	2	2	1	2	31

* Stations where neither Malaria nor Pneumonia occurred are not shown in these tables. For the annual ratios, See Table III

STATIONS,* GROUPS, AND ARMIES.	ADMISSIONS FROM MALARIA IN EACH MONTH.													ADMISSIONS FROM PNEUMONIA IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Barjeeling . . . . .	..	..	1	4	3	2	1	3	2	3	4	..	23	..	..	..	..	..	..	1	..	..	..	..	..	1
Laini Tal . . . . .	..	..	..	1	3	3	2	1	10	3	3	6	32	..	..	..	..	..	..	1	..	..	..	..	..	1
Landour . . . . .	..	..	..	..	1	1	..	1	5	66	23	..	97	..	..	..	..	..	..	..	..	..	..	..	..	..
Casauli	4	4	3	..	9	4	4	10	13	17	17	19	104	..	..	..	..	..	..	..	..	..	..	..	..	..
Dalhousie . . . . .	..	..	..	4	3	1	3	10	14	38	41	1	115	..	..	..	1	4	..	..	..	..	..	..	..	5
Murree and Lower and Upper Topas . . . . .	..	..	..	..	2	7	6	18	11	15	1	..	60	..	..	..	..	2	1	..	..	..	..	..	..	3
Mount Abu	1	1	1	4	2	3	5	..	2	8	14	6	48	..	..	..	..	..	..	..	..	..	..	..	..	..
Chachmarli	3	..	..	4	4	2	13	15	6	15	6	..	71	..	..	..	..	..	..	..	..	..	..	..	..	..
Purandhar . . . . .	..	..	..	..	..	1	..	..	2	6	5	3	17	..	..	..	..	..	..	..	..	..	..	..	..	..
Wellington	2	1	2	3	6	9	15	7	3	5	10	1	64	..	..	..	..	..	..	..	..	..	..	..	..	..
GROUP XIIIb.—HILL CONVALESCENT DEPÔTS, AND SANITARIA	10	9	7	20	33	33	49	65	69	176	124	36	631	..	..	..	1	4	2	1	2	..	..	..	..	10
Troops, marching, India	12	7	14	6	..	..	..	..	9	46	113	114	321	2	2	..	..	..	..	..	..	1	2	2	..	9
Bazar Valley Field Force . . . . .	..	..	3	..	..	..	..	..	..	..	..	..	10	..	2	..	..	..	..	..	..	..	..	..	..	2
Mohmand Field Force . . . . .	..	..	..	1	47	3	..	..	..	..	..	..	51	..	..	..	..	1	..	..	..	..	..	..	..	1
Deolali Depôt	4	..	1	11	2	15	14	12	13	28	11	14	125	..	..	..	..	..	..	..	..	..	..	..	..	..
EXTRA INDIA.																										
Aden	7	7	5	3	1	2	1	1	1	3	7	34	72	..	..	..	..	..	..	..	..	..	..	..	..	..
INDIA	438	311	366	429	569	681	842	1,492	3,392	3,992	2,755	1,557	16,824	65	28	31	17	26	23	15	7	6	12	13	26	269
Northern Army	248	150	190	235	315	388	436	992	2,498	2,980	1,981	1,050	11,476	46	11	19	13	18	14	10	4	4	8	8	18	173
Southern „	178	147	159	184	207	290	406	500	885	966	661	383	4,966	17	13	12	4	7	9	5	3	2	3	3	6	84

* Stations where neither Malaria nor Pneumonia occurred are not shown in these tables. For the annual ratios, see Table III.

EUROPEAN TROOPS, 1908.

TABLE XII.

DYSENTERY by months, stations, groups, and armies.

STATIONS* AND GROUPS.	ADMISSIONS FROM DYSENTERY IN EACH MONTH.												TOTAL.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Rangoon and Port Blair . . . . .	...	...	1	1	2	8	3	4	1	5	2	...	27
GROUP I.—BURMA COAST AND BAY ISLANDS . . . . .	...	...	1	1	2	8	3	4	1	5	2	...	27
Thayetmyo . . . . .	...	...	1	...	...	...	...	...	...	...	1	...	2
Meiktila . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Fort Dufferin (Mandalay) . . . . .	...	...	1	2	...	1	1	...	...	...	...	...	5
Shwebo	1	...	...	...	...	...	1	...	...	...	...	...	2
Bhamo . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP II.—BURMA INLAND	1	...	2	2	...	1	2	...	...	...	1	...	9
Fort William, Fulta and Chingrikhal	1	...	1	1	...	...	2	4	5	1	...	1	16
Dum-Dum . . . . .	...	...	...	...	...	...	...	...	...	...	...	3	3
Barrackpore	1	...	...	...	...	...	...	1	...	...	...	...	2
GROUP IV.—BENGAL AND ORISSA	2	...	1	1	...	...	2	4	6	1	...	4	21
B	...	...	...	...	1	2	1	2	...	2	3	...	11
Dinapore . . . . .	...	...	...	...	1	2	1	2	...	2	3	...	11
Benares . . . . .	...	...	...	...	1	...	...	1	...	...	...	...	2
Allahabad and Fort Fyzabad	1	1	2	2	2	1	...	2	1	2	...	4	24
Sitapur . . . . .	...	...	...	1	...	...	...	1	...	1	2	...	5
Lucknow	5	3	1	7	4	...	1	5	8	8	8	4	54
Cawnpore . . . . .	...	...	...	...	...	...	...	2	...	...	...	...	2
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR	6	5	8	11	8	3	5	14	13	14	15	10	112
A	...	...	...	1	1	1	1	2	1	...	...	...	7
Shahjehanpur . . . . .	...	...	...	1	1	1	1	2	1	...	...	...	7
Bareilly	3	...	...	...	...	...	...	...	1	2	1	...	7
Rurki . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	1
Meerut . . . . .	...	1	4	4	1	...	...	8	9	4	5	1	37
Delhi . . . . .	...	...	...	...	...	...	...	1	1	...	...	...	1
Ambala	1	...	...	3	...	...	...	1	1	1	3	9	19
B	...	...	1	...	...	...	...	...	...	1	...	...	2
Jullundur . . . . .	...	...	1	...	...	...	...	...	...	1	...	...	2
Ferozepore . . . . .	...	...	...	1	...	...	1	1	1	...	...	...	4
Amritsar . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Lahore Cantonment and Fort Sialkot . . . . .	...	...	...	...	1	...	...	2	...	4	...	7	7
Rawalpindi	1	...	2	3	5	...	3	7	6	4	3	3	37
Campbellpore and Attock . . . . .	...	...	2	1	...	...	...	1	...	3	2	...	9
GROUP VI.—UPPER SUB-HIMALAYA	5	1	11	14	8	6	5	20	25	18	15	18	146
A	...	...	...	1	...	2	...	...	1	...	1	...	5
Nowshera . . . . .	...	...	...	1	...	2	...	...	1	...	1	...	5
Peshawar . . . . .	...	1	...	2	2	...	1	1	...	...	...	...	7
Multan . . . . .	...	...	...	...	...	...	...	1	...	...	...	1	2
C	...	...	...	...	...	2	1	4	5	1	...	1	14
Hyderabad . . . . .	...	...	...	...	...	2	1	4	5	1	...	1	14
Karachi	2	6	...	...	2	...	3	7	...	...	...	...	20
GROUP VII.—N.-W. FRONTIER, INDUS VALLEY, AND N. W. RAJPUTANA	2	7	...	3	4	4	5	13	6	1	1	2	48
B	...	...	...	1	...	...	2	...	...	...	...	...	3
Neemuch . . . . .	...	...	...	1	...	...	2	...	...	...	...	...	3
Nasirabad	1	...	...	...	...	...	...	3	...	...	4	1	9
Muttra	1	...	...	...	...	...	...	...	...	1	...	...	2
Agra and Fatehgarh . . . . .	...	...	...	3	1	...	2	4	3	4	4	...	21
Jhansi . . . . .	...	...	...	1	1	...	...	9	3	...	...	1	15
Nowgong . . . . .	...	...	...	...	...	...	1	1	...	...	...	...	2
Mhow and Indore	3	...	2	4	2	...	5	7	5	5	3	...	36
GROUP VIII.—S.-E. RAJPUTANA, CENTRAL INDIA, AND GUJARAT	5	...	2	9	4	...	10	24	11	9	12	2	88

TABLE XIII.

DIARRHŒA by months, stations, groups, and armies.

STATIONS* AND GROUPS.	ADMISSIONS FROM DIARRHŒA IN EACH MONTH.												TOTAL.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Rangoon and Port Blair	1	...	...	1	1	...	...	...	...	...	...	...	3
GROUP I.—BURMA COAST AND BAY ISLANDS	1	...	...	1	1	...	...	...	...	...	...	...	3
Thayetmyo . . . . .	...	...	1	...	2	...	2	...	...	...	1	...	6
Meiktila . . . . .	...	...	...	...	1	1	...	...	...	...	...	1	3
Fort Dufferin (Mandalay)	1	1	...	...	...	...	...	...	...	...	...	1	3
Shwebo . . . . .	...	...	...	3	1	2	1	2	...	...	...	...	9
Bhamo . . . . .	...	...	...	...	...	...	...	...	2	1	1	...	4
GROUP II.—BURMA INLAND	1	1	1	3	4	3	3	2	2	1	2	2	25
Fort William, Fulta and Chingrikhal	2	1	1	2	...	...	4	3	7	2	...	...	22
Dum-Dum . . . . .	...	...	1	...	...	...	...	...	...	...	...	...	1
Barrackpore . . . . .	...	...	1	1	2	...	...	...	...	1	...	...	5
GROUP IV.—BENGAL AND ORISSA	2	1	3	3	2	...	4	3	7	3	...	...	28
B	...	...	1	...	...	4	2	1	...	...	1	...	9
Dinapore . . . . .	...	...	1	...	...	4	2	1	...	...	1	...	9
Benares . . . . .	...	1	2	1	...	...	1	1	1	...	1	...	8
Allahabad and Fort Fyzabad	1	1	2	...	3	1	...	8	...	...	1	1	18
Sitapur	2	...	2	...	1	...	1	...	1	2	4	1	14
Lucknow . . . . .	...	...	...	...	1	...	...	...	...	...	...	...	1
Cawnpore	2	...	...	1	2	1	...	...	...	...	...	...	6
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR	5	2	7	2	7	7	5	11	2	3	11	5	67
A	...	1	2	...	2	...	...	2	...	...	...	...	7
Shahjehanpur . . . . .	...	1	2	...	2	...	...	2	...	...	...	...	7
Bareilly	2	1	2	1	...	4	2	5	6	3	8	3	37
Rurki	1	...	2	1	2	...	...	...	3	...	...	...	9
Meerut	1	...	6	16	4	4	3	6	1	6	13	3	63
Delhi . . . . .	...	...	...	2	1	...	...	2	...	1	...	...	6
Ambala . . . . .	...	3	3	2	1	1	...	...	1	3	10	3	27
B	1	...	3	2	...	...	...	...	1	1	...	2	10
Jullundur	1	...	3	2	...	...	...	...	...	1	...	2	10
Ferozepore . . . . .	...	...	...	2	1	...	...	...	...	1	3	2	9
Amritsar . . . . .	...	...	...	1	...	...	1	...	...	...	...	...	2
Lahore Cantonment and Fort Sialkot	1	...	1	1	...	1	...	1	...	4	2	3	14
Rawalpindi	9	6	1	8	1	...	2	...	5	8	9	2	51
Campbellpore and Attock	3	1	2	11	10	9	3	6	2	8	5	3	63
GROUP VI.—UPPER SUB-HIMALAYA	18	12	22	47	22	19	11	24	21	35	51	21	303
A	1	2	9	6	4	5	...	...	1	5	2	5	40
Nowshera	1	2	9	6	4	5	...	...	1	5	2	5	40
Peshawar . . . . .	...	1	9	10	21	6	1	...	1	...	1	7	57
Multan	2	...	2	2	1	...	...	...	3	1	...	...	11
C	...	...	1	...	1	2	3	2	1	...	...	...	10
Hyderabad . . . . .	...	...	1	...	1	2	3	2	1	...	...	...	10
Karachi	3	3	4	...	1	1	1	1	5	...	...	...	19
GROUP VII.—N.-W. FRONTIER, INDUS VALLEY, AND N. W. RAJPUTANA	6	6	25	18	28	14	5	3	11	6	3	12	137
B	...	...	...	1	1	...	1	5	3	3	1	...	15
Neemuch . . . . .	...	...	...	1	1	...	1	5	3	3	1	...	15
Nasirabad	6	1	...	1	2	...	...	5	1	...	1	1	18
Muttra . . . . .	...	2	1	1	...	...	...	...	...	...	2	...	6
Agra and Fatehgarh . . . . .	...	...	1	1	1	...	...	3	2	2	2	3	15
Jhansi	1	...	1	3	2	1	...	7	2	2	1	3	23
Nowgong	1	...	1	...	...	1	...	...	...	...	...	...	3
Mhow and Indore	1	3	5	4	2	...	4	6	1	3	4	6	39
GROUP VIII.—S.-E. RAJPUTANA, CENTRAL INDIA, AND GUJARAT	9	6	9	11	8	1	6	26	9	10	11	13	119

* Stations where neither Dysentery nor Diarrhœa occurred are not shown in these tables. For the annual ratios, see Table III.

DYSENTERY by months, stations, groups, and armies.

DIARRHOEA by months, stations, groups, and armies.

STATIONS, GROUPS AND ARMIES.	ADMISSIONS FROM DYSENTERY IN EACH MONTH.													ADMISSIONS FROM DIARRHOEA IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
A																										
Saugor . . . . .	...	1	5	..	2	1	2	4	..	..	1	..	16	...	...	...	..	...	...	1	...	...	...	...	...	1
Jubbulpore	6	...	2	2	4	2	3	3	3	5	9	4	43	...	1	4	4	4	5	3	...	1	...	1	...	23
Kampti . . . . .	...	1	1	2	2	...	...	...	2	3	2	1	14	1	...	1	...	4	1	2	7	1	...	...	...	17
B																										
Secunderabad	6	4	6	1	4	2	3	22	14	6	3	4	75	1	...	...	2	...	...	6	5	3	...	2	...	19
Belgaum . . . . .	...	...	...	2	...	...	1	...	...	...	1	...	4	1	...	...	2	2	...	1	2	2	...	...	...	12
Poona	1	2	1	...	...	...	2	5	5	3	2	2	23	1	5	4	2	...	...	11	3	3	2	1	1	33
Kirkee . . . . .	...	3	4	5	3	4	4	12	4	1	1	2	43	...	...	...	...	...	1	...	...	...	...	1	...	2
Ahmednagar . . . . .	...	...	...	...	1	...	1	2	...	...	...	...	4	4	...	4	...	...	1	3	...	4	3	2	7	28
GROUP IX.—DECCAN	13	11	19	12	16	9	16	48	28	18	19	13	222	8	6	13	10	10	9	27	16	14	7	6	9	135
Colaba and Khandalla	1	...	2	...	1	1	2	2	3	2	1	12	27	...	...	2	...	...	...	1	1	...	...	4	5	13
Cannanore, Calicut and Malapuram . . . . .	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	1	...	...	...	...	...	1
GROUP X.—WESTERN COAST	1	...	2	...	1	1	2	2	3	2	2	12	28	...	...	2	...	...	...	1	2	...	...	4	5	14
A																										
Bellary . . . . .	...	...	1	1	...	3	6	1	1	1	...	...	14	...	...	...	...	...	...	...	...	...	...	...	...	...
Bangalore	1	4	5	3	6	8	...	7	6	4	2	...	46	3	4	3	1	7	3	1	5	2	2	1	3	35
B																										
St. Thomas' Mount	1	...	...	...	...	1	1	1	...	...	...	...	4	...	...	...	...	2	...	2	...	1	...	...	...	5
Madras and Poonamallee	1	5	1	2	1	2	2	6	4	1	1	4	30	1	...	...	...	...	...	...	...	...	...	...	...	1
GROUP XI.—SOUTHERN INDIA	3	9	7	6	7	14	9	15	11	6	3	4	94	4	4	3	1	9	3	3	5	3	2	1	3	41
Ranikhet and Chaubuttia . . . . .	...	...	1	5	11	2	1	3	2	3	1	...	29	1	...	1	9	...	2	2	7	6	2	...	...	30
Chakrata . . . . .	...	...	...	4	3	2	...	1	3	1	...	...	14	...	...	...	5	3	5	2	2	2	3	3	...	25
Lebong . . . . .	...	...	...	...	...	3	...	...	...	...	...	...	3	...	...	1	...	11	16	4	1	...	...	...	...	33
Solon . . . . .	...	...	...	...	...	2	...	2	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...
Dagshai . . . . .	...	...	...	...	...	2	...	2	...	...	...	...	4	...	...	...	...	...	1	...	...	...	...	...	...	1
Subathu . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	...	...	...	3
Jutogh . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	2
Kuldana . . . . .	...	...	...	...	1	...	1	1	1	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...
Kalabagh and Baragali . . . . .	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	1	1	1	...	1
Camp Gharial . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	3	5	1	1	1	1	1	2	...	14
„ Barian and Khairagali . . . . .	...	...	...	1	2	5	1	...	1	...	...	...	10	...	...	...	...	1	5	2	1	2	2	...	...	14
Khan Spur . . . . .	...	...	...	...	...	...	1	...	2	...	...	...	3	...	...	...	...	1	3	2	3	1	1	...	...	11
Cherat . . . . .	...	...	...	...	2	2	2	...	...	2	1	...	9	...	...	...	...	7	5	1	4	5	...	...	...	22
Quetta . . . . .	...	...	...	...	...	1	...	...	4	1	2	1	9	3	...	2	...	1	2	1	4	...	4	2	...	19
Maymyo . . . . .	...	1	...	...	2	...	1	...	...	...	...	...	4	...	...	...	...	1	...	...	...	...	...	...	...	1
GROUP XII a.—HILL STATIONS . . . . .	...	1	1	10	21	20	7	9	13	7	4	1	94	4	...	4	16	18	36	30	29	18	13	8	...	176
Darjeeling . . . . .	...	...	...	1	1	3	4	...	1	1	...	...	11	...	...	...	...	...	1	1	2	...	...	...	...	4
Naini Tal . . . . .	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	2
Landour . . . . .	...	...	...	2	...	1	...	...	...	...	...	...	3	...	...	...	...	...	1	1	...	1	1	...	...	4
Kasauli . . . . .	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	1	2	...	3	1	...	3	...	...	10
Dalhousie . . . . .	...	...	...	...	...	...	1	...	1	...	...	...	2	...	...	...	...	...	...	...	...	...	1	...	...	2
Murree and Lower and Upper Topas . . . . .	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	1	1	1	...	...	...	...	...	3
Mount Abu	1	...	...	...	1	...	...	...	...	...	...	...	2	...	...	...	...	...	...	2	...	1	...	...	...	3
Pachmarhi . . . . .	...	...	...	...	1	4	2	...	1	...	...	...	8	...	...	2	...	1	3	2	2	...	...	...	...	10
Purandhur . . . . .	...	...	...	...	...	...	2	...	...	...	...	1	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Wellington . . . . .	...	...	...	...	3	5	...	...	...	...	...	...	8	...	3	1	7	5	2	...	2	...	...	...	...	20
GROUP XII b.—HILL CONVALESCENT DEPÔTS, AND SANITARIA	1	...	...	4	6	13	10	...	3	1	...	1	39	...	3	3	9	9	8	8	9	2	2	5	...	581
Troops, Marching, India . . . . .	...	1	...	...	...	...	...	...	...	1	15	14	31	...	3	4	3	...	...	...	...	1	6	8	15	40
Bazar Valley Field Force . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	1	...	39	1	...	...	...	...	...	...	7
Mohmand Field Force . . . . .	...	...	...	...	5	1	...	...	...	...	...	...	6	...	...	...	...	...	1	...	...	...	...	...	...	41
Deolali Depôt . . . . .	...	...	...	...	...	1	...	1	...	...	1	...	3	...	...	...	...	...	...	...	...	...	...	...	...	1
EXTRA INDIA.																										
Aden	4	1	2	...	...	...	...	4	3	4	1	5	24	1	3	1	1	...	1	...	...	1	2	7	5	22
INDIA																										
	43	35	56	73	82	81	76	158	123	87	91	86	992	59	53	98	126	157	102	104	130	91	90	117	90	1,217
NORTHERN ARMY	14	7	21	46	39	34	27	53	59	44	38	33	415	29	20	56	90	77	74	56	69	57	59	80	41	708
SOUTHERN ARMY	29	28	35	27	38	46	49	105	64	42	38	39	540	30	24	37	32	41	27	48	61	33	25	29	34	421

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TABLE XV.

B.—CHANGE of PERSONNEL, YOUTHFULNESS, RECENT ARRIVAL, and MARRIAGE, in relation to VENEREAL DISEASE and ENTERIC FEVER.

YEAR.	ARRIVED IN INDIA.*		YEAR.	PER CENT. OF STRENGTH.			Strength.	RATIO PER 1,000.			RATIO PER CENT. OF TOTAL ADMISSION.			
	Men.	Women.		Age.	Length of residence.	Married. ‡		Admissions.			Venereal Diseases.	Enteric Fever.		
								Under 25 years.	Under 5 years.	All causes.			Venereal Diseases.	Enteric Fever.
1873-79 . . .	13,113	575	1878	35	60	7'59	56,475	1,651'3	271'3	8'5	16'43	'51		
1879-80 . . .	13,542	612	1879	39	61	6'63	59,082	1,871'2	234'8	8'0	12'55	'43		
1880-81 . . .	13,165	664	1880	41	65	6'36	59,717	1,754'2	249'7	7'9	14'23	'45		
1881-82 . . .	9,895	349	1881	43	70	5'94	58,728	1,604'6	260'5	5'6	16'23	'35		
1882-83 . . .	9,748	325	1882	41	72	5'43	57,269	1,444'9	265'2	6'2	18'35	'43		
1883-84 . . .	12,525	433	1883	41	75	5'20	55,525	1,335'7	270'3	7'7	20'23	'58		
1884-85 . . .	11,822	393	1884	45	75	5'05	54,996	1,513'4	293'9	11'7	19'42	'77		
1885-86 . . .	17,766	508	1885	48	73	4'23	56,967	1,532'7	342'7	11'2	22'36	'73		
1886-87 . . .	11,645	372	1886	52	75	3'90	61,015	1,513'9	389'5	18'1	25'73	1'20		
1887-88 . . .	11,729	459	1887	52	73	3'84	63,515	1,369'7	361'2	12'7	26'37	'93		
1888-89 . . .	12,407	506	1888	50	76	3'65	68,887	1,381'7	370'6	13'6	26'82	'99		
1889-90 . . .	12,270	532	1889	49	78	3'60	69,266	1,498'0	481'5	22'9	32'14	1'53		
1890-91 . . .	14,046	542	1890	50	80	3'70	67,823	1,520'2	503'5	18'5	33'12	1'22		
1891-92 . . .	15,456	529	1891	51	79	3'36	67,030	1,379'1	400'7	20'4	29'06	1'48		
1892-93 . . .	15,894	540	1892	51	80	3'29	68,137	1,517'3	409'9	22'1	27'01	1'46		
1893-94 . . .	15,090	482	1893	53	79	3'29	70,091	1,414'9	466'0	20'0	32'94	1'41		
1894-95 . . .	15,957	517	1894	54	81	...†	71,082	1,508'0	511'4	20'9	33'91	1'38		
1895-96 . . .	14,346	654	1895	55	83	...	71,031	1,461'8	522'3	26'3	35'73	1'80		
1896-97 . . .	14,805	545	1896	56	82	...	70,484	1,386'7	511'6	25'5	36'89	1'84		
1897-98 . . .	16,227	543	1897	55	84	...	68,395	1,556'9	485'7	32'4	31'20	2'08		
1898-99 . . .	16,911	648	1898	54	81	...	67,741	1,436'9	362'9	36'9	25'26	2'57		
1899-1900 . . .	3,369	168	1899	53	78	...	67,697	1,148'7	313'4	20'6	27'28	1'79		
1900-01 . . .	5,958	185	1900	45	69	...	60,553	1,143'2	298'1	16'0	26'07	1'40		
1901-02 . . .	18,594	438	1901	42	63	...	60,838	1,104'3	276'0	12'8	24'99	1'16		
1902-03 . . .	24,840	961	1902	43	68	...	60,540	1,078'4	281'4	16'7	26'09	1'55		
1903-04 . . .	15,126	758	1903	51	76	...	70,445	1,033'4	247'0	19'6	23'90	1'90		
1904-05 . . .	16,366	820	1904	52	80	...	71,083	900'4	198'5	19'6	22'05	2'18		
1905-06 . . .	15,178	804	1905	52	84	...	71,343	834'3	153'7	16'1	18'42	1'93		
1906-07 . . .	18,636	912	1906	51	84	...	70,272	870'8	117'3	15'6	13'47	1'79		
1907-08 . . .	16,083	1,049	1907	...†	...†	...	69,332	756'4	89'9	13'1	11'89	1'74		
1908-09 . . .	17,182	1,130	1908	...†	...†	...	68,933	839'5	69'6	14'5	8'30	1'73		

*In ordinary years the departures plus the deaths nearly balance the arrivals.

† Return abolished.

‡ On the 1st May of each year.

EUROPEAN TROOPS, 1908.

TABLE XVIII.

STATISTICS OF OFFICERS.

A.—SICKNESS and MORTALITY among OFFICERS of the BRITISH ARMY in 1908. (From the Medical Returns of the Army.)

		Northern Army.		Southern Army.		India.*	
STRENGTH		1,113		1,002		2,188	
CASES REMAINING FROM 1907		23		17		40	
		Ratios.	Actuals.	Ratios.	Actuals.	Ratios.	Actuals.
CONSTANTLY SICK		28'3	31'52	23'8	23'81	25'5	55'86
INVALIDS		40'43	45	46'92	47	42'05	92
ADMISSIONS.							
Influenza		26'1	29	10'0	10	17'8	39
Cholera		'9	1	...	...	'5	1
Small-pox		6'3	7	1'0	1	3'7	8
Enteric Fever		30'5	34	19'0	19	24'7	54
Malaria		159'0	177	86'8	87	125'2	274
Pyrexia of uncertain origin		67'3	75	49'9	50	58'5	128
Tubercle of the lungs		1'8	2	1'0	1	1'4	3
Pneumonia		2'7	3	...	...	1'4	3
Respiratory Diseases		12'6	14	12'0	12	11'9	26
Dysentery		19'8	22	30'9	31	27'9	61
Diarrhœa		27'0	30	27'0	27	30'6	67
Hepatic Abscess . . . . .		...	...	2'0	2	'9	2
„ Congestion and Inflammation		19'8	22	15'0	15	17'4	38
Venereal Diseases		4'5	5	3'0	3	3'7	8
ALL CAUSES		722'4	801	580'8	582	668'2	1,462
DEATHS.							
Cholera		'90	1	...	...	'46	1
Small-pox . . . . .		...	...	...	...	...	...
Enteric Fever		'90	1	...	...	1'37	3
Malaria		'90	1	...	...	'46	1
Pyrexia of uncertain origin . . . . .		...	...	...	...	...	...
Heat-stroke . . . . .		...	...	...	...	...	...
Circulatory Diseases . . . . .		...	...	...	...	...	...
Tubercle of the lungs . . . . .		...	...	...	...	...	...
Pneumonia		'90	1	...	...	'46	1
Respiratory Diseases . . . . .		...	...	...	...	...	...
Dysentery . . . . .		...	...	2'00	2	'91	2
Diarrhœa . . . . .		...	...	...	...	...	...
Hepatic Abscess . . . . .		...	...	1'00	1	'46	1
ALL CAUSES		7'19	8	6'99	7	9'60	21
DEATHS OUT OF HOSPITAL . . . . .		...	...	3'99	4	3'20	7

* Including officers on the line of march and with the Field Forces.

B.—CAUSES of DEATH among EUROPEAN OFFICERS of the BRITISH and INDIAN ARMIES in 1908. (From non-medical sources.)

ARMIES.				IN INDIA.														Deaths in England and other countries.		Deaths at sea.		GRAND TOTAL.		Ratio per 1,000.	
		Strength in India, whether on leave or not, on the 1st of July 1908.		Strength in Europe or beyond sea on 1st July 1908, whether on furlough or sick leave.		Cholera.	Small-pox.	Enteric Fever.	Malaria.	Pyrexia of uncertain origin.	Heat-stroke.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	TOTAL.						
BRITISH	.	.	2,922	633	1	::	3	1	::	::	::	::	::	1	::	2	::	1	21	1	3	25	7'03		
INDIAN	.	.	3,186	975	3	::	6	::	::	::	::	2	::	::	::	1	::	1	18	4	1	23	5'53		

EUROPEAN TROOPS, 1908.

TABLE XVIII—*continued.*

STATISTICS OF OFFICERS.

C.—CHOLERA by months, stations, groups and armies.

STATIONS,* GROUPS, AND ARMIES.	Average annual strength.	NUMBER OF ADMISSIONS FROM CHOLERA IN EACH MONTH.												Total Ad- missions.	Admission rate per 1,000 of strength.	Total deaths.	Death rate per 1,000 of strength.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.				
Rawalpindi	96	...	...	...	1	...	...	...	...	...	...	...	...	1	10'4	1	10'42
GROUP VI.—UPPER SUB-HIMA- LAYA	434	...	...	...	1	...	...	...	...	...	...	...	...	1	2'3	1	'30
INDIA	2,188	...	...	...	1	...	...	...	...	...	...	...	...	1	'5	1	'46
NORTHERN ARMY	1,113	...	...	...	1	...	...	...	...	...	...	...	...	1	'9	1	'90
SOUTHERN ARMY	1,002	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

* Stations where cholera did not occur are not shown in this table.

D.—ENTERIC FEVER by months, stations, groups and armies.

STATIONS* GROUPS AND ARMIES.	Average annual strength.	NUMBER OF ADMISSIONS FROM ENTERIC FEVER IN EACH MONTH.												Total admissions.	Admission rate per 1,000 of strength.	Total deaths.	Death rate per 1,000 of strength.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.				
Mandalay	8	...	1	...	...	...	...	...	...	...	...	...	...	1	125'0	...	...
GROUP II.—BURMA INLAND .	39	...	1	...	...	...	...	...	...	...	...	...	...	1	25'6	...	...
Sitapur	16	...	...	...	...	1	...	...	...	...	...	...	...	1	62'5	...	...
Lucknow	71	...	...	...	...	...	1	...	...	...	...	...	...	1	14'1	...	...
Cawnpore	27	...	...	...	...	...	...	...	...	...	1	...	...	1	37'0	...	...
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR .	191	...	...	...	...	1	1	...	...	...	1	...	...	3	15'7	...	...
Bareilly	32	...	...	...	...	...	1	...	...	...	...	...	...	1	31'2	...	...
Ferozepore	31	...	...	...	...	...	...	...	...	1	...	...	...	1	32'3	...	...
Lahore Cantonment and Fort	38	...	...	...	...	...	...	...	...	...	...	1	...	1	26'3	...	...
Sialkot	42	...	2	...	...	...	...	...	...	...	...	1	...	3	71'4	...	...
Rawalpindi	96	...	...	...	1	...	...	...	...	...	2	...	...	3	31'2	...	...
Campbellpore and Attock .	12	...	...	...	...	...	...	...	...	...	...	...	1	1	83'3	...	...
GROUP VI.—UPPER SUB-HIMALAYA	434	...	2	...	1	...	1	...	...	1	2	2	1	10	23'0	...	...
Peshawar	46	...	...	2	...	2	...	...	...	...	...	...	...	4	87'0	1	21'74
GROUP VII.—NORTH-WEST FRONTIER, INDUS VALLEY, AND NORTH-WESTERN RAJPUTANA	148	...	...	2	...	2	...	...	...	...	...	...	...	4	27'0	1	6'76
Jubbulpore	43	...	...	...	1	...	...	...	...	...	...	...	...	1	23'3	...	...
Secunderabad	92	1	2	...	...	...	...	...	...	...	...	1	...	4	43'5	...	...
Kirkee	46	...	...	...	...	...	1	...	...	...	...	...	...	1	21'7	...	...
Ahmednagar	27	...	...	...	...	...	...	...	1	1	...	...	...	2	74'1	...	...
GROUP IX.—DECCAN	343	1	2	...	1	...	1	...	1	1	...	1	...	8	23'3	...	...
Colaba and Khandalla . . .	37	...	...	1	...	...	...	...	...	...	1	...	...	2	54'1	...	...
GROUP X.—WESTERN COAST .	47	...	...	1	...	...	...	...	...	...	1	...	...	2	42'6	...	...
Bangalore	88	...	...	...	...	...	...	...	...	1	...	...	...	1	11'4	...	...
GROUP XI.—SOUTHERN INDIA .	138	...	...	...	...	...	...	...	...	1	...	...	...	1	7'2	...	...
Ranikhet and Chaubuttia .	42	...	...	...	1	...	...	...	...	...	...	...	...	1	23'8	...	...
Chakrata	39	...	...	...	...	1	1	...	...	...	...	...	...	2	51'3	...	...
Kuldana	8	...	...	...	...	...	2	...	2	...	...	...	...	4	500'0	...	...
Quetta	100	...	...	...	...	...	...	...	...	...	1	1	2	4	40'0	...	...
GROUP XIIa.—HILL STATIONS.	339	...	...	...	1	1	3	...	2	...	1	1	2	11	32'4	...	...
Kasauli	6	...	...	...	...	...	...	...	...	...	...	...	1	1	166'7	...	...
Murree and Lower and Upper Topas	14	...	...	...	...	1	3	3	2	...	...	...	...	9	642'9	...	...
Purandhar	4	...	...	...	1	...	...	1	...	...	...	...	...	2	500'0	...	...
Wellington	36	...	...	...	...	...	...	...	...	1	...	...	...	1	27'8	...	...
GROUP XIIb.—HILL CONVALESCENT DEPÔTS AND SANITARIA	127	...	...	...	1	1	3	4	2	1	...	...	1	13	102'4	...	...
Marching	45	...	...	1	...	...	...	...	...	...	...	...	...	1	22'2	2	44'44
INDIA	2,188	1	4	4	4	5	9	4	5	4	5	4	4	54	24'7	3	1'39
NORTHERN ARMY	1,113	...	2	2	2	5	8	3	4	1	3	2	2	34	30'5	1	'90
SOUTHERN ARMY	1,002	1	3	1	2	...	1	1	1	3	2	2	2	19	19'0	...	...

* Stations where Enteric Fever did not occur are not shown in this table.

EUROPEAN TROOPS, 1908.

TABLE XVIII—*continued.*

STATISTICS OF OFFICERS.

E.—DETAIL of DISEASES.

DISEASES.	BRITISH OFFICERS ATTACHED TO EUROPEAN TROOPS.					BRITISH OFFICERS ATTACHED TO NATIVE TROOPS.			DISEASES.	BRITISH OFFICERS ATTACHED TO EUROPEAN TROOPS.					BRITISH OFFICERS ATTACHED TO NATIVE TROOPS.		
	INDIA.*			FIELD SERVICE.†		INDIA.				INDIA.*			FIELD SERVICE.‡		INDIA.		
	Admissions.	Deaths.	Invalids.	Admission.	Deaths.	Admissions.	Deaths.	Invalids.‡		Admissions.	Deaths.	Invalids.	Admissions.	Deaths.	Invalids.†		
Diphtheria . . .	1	...	1	...	...	2	...	...	Carcinoma . . .	1	...	...	...	...	...	...	...
Enteric fever . . .	54	3	15	...	...	29	6	...	Other general diseases .	...	...	...	2	...	...	...	...
German measles . . .	1	...	...	...	...	2	...	...	Neuritis . . .	1	...	...	...	...	1	...	...
Influenza . . .	39	...	...	...	...	23	...	...	Multiple neuritis . .	3	...	1	...	...	...	...	...
Measles . . .	6	...	...	...	...	8	...	...	Leptomeningitis . .	...	...	...	...	...	1	...	...
Mumps . . .	3	...	...	...	...	1	...	...	Abscess of brain . .	1	1	...	...	...	...	...	...
Scarlet fever . . .	1	...	...	...	...	1	...	...	Sanguineous apoplexy	2	...	1	...	...	...	...	...
Small-pox . . .	8	...	...	...	...	4	...	...	Hemiplegia . . .	1	...	1	...	...	...	...	...
Cholera . . .	1	1	...	...	...	4	3	...	Headache . . .	...	...	...	...	...	1	...	...
Dengue . . .	12	...	...	...	...	...	...	...	Migraine . . .	...	...	...	...	...	1	...	...
Dysentery . . .	54	2	5	7	...	35	1	...	Neuralgia . . .	15	...	...	...	...	13	...	...
Malaria . . .	266	1	10	8	...	268	...	...	Neurasthenia . . .	4	...	5	...	...	4	...	...
Pyrexia of uncertain origin . . .	127	...	1	1	...	65	...	...	Conjunctivitis . . .	6	...	...	...	...	5	...	...
Erysipelas . . .	2	1	...	...	...	...	...	...	Ulcerative keratitis .	...	...	...	...	...	1	...	...
Septicæmia . . .	1	...	1	...	...	1	...	...	Iritis . . .	2	...	...	...	...	...	...	...
Inflammation of lymph- atic glands . . .	10	...	1	...	...	2	...	...	Retinitis . . .	1	...	...	...	...	1	...	...
Suppuration of lymph- atic glands . . .	1	...	...	...	...	...	...	...	Amblyopia and am- aurosis . . .	...	...	...	...	...	1	...	...
Lymphangitis . . .	...	...	...	...	...	2	...	...	Hemianopia . . .	...	...	...	...	...	1	...	...
Inflammation of con- nective tissue . .	29	...	...	...	...	7	...	...	Cedema of eyelids . .	...	...	...	...	...	1	...	...
Abscess of the connec- tive tissue . . .	14	...	...	...	...	9	...	...	Inflammation of the external ear . . .	1	...	...	...	...	4	...	...
Boils . . .	24	...	...	...	...	16	...	...	Inflammation of the middle ear . . .	1	...	...	...	...	...	...	...
Carbuncles . . .	3	...	...	...	...	...	...	...	Inflammation of the internal ear . . .	1	...	...	...	...	...	...	...
Onychia . . .	4	...	...	...	...	1	...	...	Rhinitis . . .	1	...	...	...	...	...	...	...
Whitlow . . .	1	...	...	...	...	...	...	...	Coryza . . .	...	...	...	...	...	4	...	...
Ulcer . . .	10	...	...	...	...	3	...	...	Perichondritis . . .	...	...	...	...	...	1	...	...
Pneumonia . . .	3	1	2	...	...	3	...	...	Inflammation of acces- sory sinuses (suppara- tive) . . .	1	...	1	...	...	...	...	...
Rheumatic fever . .	7	...	1	...	...	12	...	...	Inflammation of naso-pharynx . . .	...	...	...	...	...	1	...	...
Sore throat . . .	4	...	...	...	...	7	...	...	Pericarditis . . .	...	...	...	...	...	1	...	...
Tonsillitis . . .	43	...	...	...	...	...	...	...	Valvular disease of heart . . .	1	...	...	...	...	...	...	...
Quinsy . . .	4	...	...	...	...	...	...	...	Angina pectoris . .	1	...	...	...	...	...	...	...
Tubercle of lungs . .	3	...	4	...	...	...	...	...	Effects of strain on heart . . .	...	...	...	...	...	2	...	...
Tubercle of lymphatic glands . . .	1	...	...	...	...	2	...	...	Syncope . . .	3	...	...	...	...	...	2	...
Tubercle of bladder . .	...	...	...	...	...	1	...	...	Disordered action of heart . . .	1	...	...	...	...	2	...	...
Gonorrhœa . . .	2	...	...	...	...	...	...	...	Thrombosis of veins .	1	...	...	...	...	...	...	...
Syphilis . . .	6	...	3	...	...	2	...	...	Phlebitis . . .	...	...	...	...	...	2	...	...
Ringworm . . .	2	...	...	...	...	1	...	...	Varix . . .	2	...	1	...	...	...	...	...
Hirudo Medicinalis . .	1	...	...	...	...	...	...	...	Asthma . . .	1	...	...	...	...	1	...	...
Debility . . .	18	...	5	...	...	3	...	...	Laryngitis . . .	4	...	...	...	...	6	...	...
Anæmia . . .	2	...	1	...	...	...	...	...	Bronchitis . . .	17	...	...	...	...	19	...	...
Gout . . .	1	...	...	...	...	4	...	...	Congestion of lung . .	...	...	...	...	...	1	...	...
Lipoma . . .	1	...	...	...	...	...	...	...		
Osteoma . . .	1	...	...	...	...	...	...	...		

* Excluding Field Service.

† Information not available.

‡ Bazar Valley and Mohmand Field Forces combined

DISEASES.	BRITISH OFFICERS ATTACHED TO EUROPEAN TROOPS.					BRITISH OFFICERS ATTACHED TO NATIVE TROOPS.			DISEASES.	BRITISH OFFICERS ATTACHED TO EUROPEAN TROOPS.					BRITISH OFFICERS ATTACHED TO NATIVE TROOPS.		
	INDIA.*			FIELD SERVICE.†		INDIA.				INDIA.*			FIELD SERVICE.†		INDIA.		
	Admissions.	Deaths.	Invalids.	Admissions.	Deaths.	Admissions.	Deaths.	Invalids.†		Admissions.	Deaths.	Invalids.	Admissions.	Deaths.	Admissions.	Deaths.	Invalids.†
Hæmoptysis . . .	...	...	...	...	...	2	...	...	Hæmaturia . . .	1	...	...	...	...	...	...	...
Pleurisy . . .	4	...	...	...	...	4	...	...	Lithuria . . .	1	...	...	...	...	...	...	...
Stomatitis . . .	1	...	...	...	...	...	...	...	Phimosi s . . .	2	...	...	...	...	...	...	...
Caries of dentine . .	1	...	...	...	...	...	...	...	Inflammation of the speratic cord . .	1	...	...	...	...	...	...	...
Inflammation of dental periosteum . . .	2	...	...	...	...	...	...	...	Hydrocele . . .	3	...	...	...	...	2	...	...
Abscess dental perios- teum . . .	...	...	...	...	...	1	...	...	Hæmatocele of tunica vaginalis . . .	...	...	...	...	...	1	...	...
Ulceration of tongue . .	1	...	1	...	...	...	...	...	Orchitis . . .	2	...	...	...	...	2	...	...
Tonsillitis . . .	...	...	...	...	...	17	...	...	Epididymitis . . .	1	...	...	...	...	3	...	...
Quinsy . . .	...	...	...	...	...	1	...	...	Periostitis . . .	2	...	...	...	...	2	...	...
Inflammation of pharynx. . .	...	...	...	...	...	9	...	...	Chronic abscess of bone	1	...	...	...	...	...	...	...
Gastritis . . .	17	...	...	...	...	13	...	...	Necrosis of bones . .	...	...	...	...	...	1	...	...
Indigestion . . .	7	...	...	...	...	9	...	...	Arthritis . . .	1	...	...	...	...	1	...	...
Hyperchlorhydria . .	...	...	...	...	...	1	...	...	Synovitis . . .	36	...	1	...	...	26	...	...
Inflammation of intes- tines . . .	2	...	...	...	...	...	...	...	Dislocation of intra- articular cartilage .	3	...	...	...	...	...	...	...
Enteritis . . .	12	...	1	...	...	13	...	...	Loose body . . .	...	...	1	...	...	...	...	...
Appendicitis . . .	9	1	1	...	...	4	...	...	Myalgia . . .	8	...	...	...	...	12	...	...
Colitis . . .	8	...	1	...	...	4	...	...	Inflammation of tendons	...	...	...	...	...	1	...	...
Ulceration of intestines	...	...	...	...	...	1	...	...	Tenosynovitis . . .	3	...	...	...	...	...	...	...
Fæcal accumulation . .	1	...	...	...	...	...	...	...	Abscess of bursæ . .	1	...	...	...	...	...	...	...
Hernia . . .	1	...	2	...	...	...	...	...	Hammer toe . . .	...	...	...	...	...	1	...	...
Diarrhœa . . .	57	...	1	10	...	33	...	...	Erythema . . .	...	...	...	...	...	1	...	...
Constipation . . .	2	...	...	...	...	1	...	...	Eczema . . .	4	...	...	...	...	2	...	...
Colic . . .	7	...	...	...	...	10	...	...	Impetigo contagiosa .	...	...	...	...	...	2	...	...
Proctitis . . .	1	...	...	...	...	...	...	...	Psoriasis . . .	1	...	...	...	...	...	...	...
Ischio-rectal abscess .	1	...	...	...	...	...	...	...	Corn . . .	1	...	...	...	...	...	...	...
Ulceration of rectum and anus . . .	...	...	...	...	...	1	...	...	Delhi boil . . .	...	...	...	...	...	3	...	...
Fistula in ano . . .	3	...	...	...	...	...	...	...	Wen . . .	1	...	...	...	...	...	...	...
Piles . . .	9	...	...	...	...	6	...	...	Sycosis . . .	1	...	...	...	...	...	...	...
Hepatitis . . .	17	...	4	...	...	7	...	...	Other local diseases .	...	...	...	1	...	...	...	...
„ suppurative . . .	2	1	1	...	...	...	1	...	Effects of heat . . .	...	...	...	1	...	...	...	...
Congestion of liver . .	20	1	3	1	...	9	...	...	Heat-stroke . . .	9	...	...	...	...	...	...	...
Jaundice . . .	28	...	...	...	...	11	...	...	Sun-stroke . . .	4	...	1	11	...	5	...	...
Cholecystitis . . .	5	...	...	...	...	...	...	...	Effects of cold . . .	...	...	...	...	...	1	...	...
Biliary colic . . .	...	...	...	...	...	1	...	...	Suffocation from stran- gulation . . .	...	...	...	...	...	...	1	...
Gallstones . . .	1	...	...	...	...	...	...	...	Burns and scalds . .	...	...	...	...	...	1	...	...
Peritonitis . . .	...	...	...	...	...	...	1	...	Abrasions . . .	7	...	...	...	...	8	...	...
Acute nephritis . . .	1	...	...	...	...	...	1	...	Contusions . . .	67	...	...	...	...	31	...	...
Bright's disease . . .	1	...	1	...	...	...	...	...	Wounds . . .	42	...	1	...	...	36	...	...
Pyelitis . . .	...	...	...	...	...	1	...	...	Wounds, gun shot . .	1	1	...	...	1	4	...	...
Calculus in kidney . .	1	...	...	...	...	2	...	...	„ „ in action . . .	...	...	...	12	3	...	...	...
„ „ pelvis . . .	1	...	1	...	...	...	...	...	Sprains and strains .	56	...	1	...	...	43	...	...
Renal colic . . .	3	...	2	...	...	...	...	...	Dislocations . . .	17	...	...	...	...	11	...	...
Cystitis . . .	2	...	...	...	...	3	...	...	Ruptures . . .	2	...	...	...	...	3	...	...
									Fractures . . .	25	1	4	...	...	13	...	...

* Excluding Field Service.
† Information not available.
‡ Bazar Valley and Mohmand Field Forces combined.

EUROPEAN TROOPS, 1908.

TABLE XVIII—concluded.

STATISTICS OF OFFICERS.

E.—DETAIL OF DISEASES.

DISEASES.	BRITISH OFFICERS ATTACHED TO EUROPEAN TROOPS.					BRITISH OFFICERS ATTACHED TO NATIVE TROOPS.			DISEASES.	BRITISH OFFICERS ATTACHED TO EUROPEAN TROOPS.					BRITISH OFFICERS ATTACHED TO NATIVE TROOPS.		
	INDIA.*			FIELD SERVICE.†		INDIA.				INDIA.*			FIELD SERVICE.†		INDIA.		
	Admissions.	Deaths.	Invalids.	Admissions.	Deaths.	Admissions.	Deaths.	Invalids.†		Admissions.	Deaths.	Invalids.	Admissions.	Deaths.	Admissions.	Deaths.	Invalids.†
Fracture of base of skull	...	...	...	...	...	...	1	...	Venoms of stinging insects.	1	..	...	...	...	1	...	...
Laceration of muscles .	1	...	...	...	...	1	...	...	Venom of dog . . .	1	...	...	...	...	3	...	...
Traumatic meningeal hæmorrhage . . .	1	...	1	...	...	...	...	...	Wound gunshot suicidal	...	1	...	...	...	...	...	...
Concussion of brain .	14	...	3	...	...	10	...	...	„ cut throat „ .	...	1	...	...	...	...	...	...
Contusion of eye ball .	...	...	...	...	...	1	...	...	Killed, accidental .	...	...	...	...	...	...	1	...
Internal derangement of knee joint . .	1	...	...	...	...	1	...	...	Not yet diagnosed .	...	...	...	10	...	...	...	...
Poison, ptomaines .	2	...	...	...	...	...	...	...		
„ arsenic .	...	...	...	...	...	1	...	...							
Venoms of snake .	...	...	...	...	...	...	...	...	
									TOTAL .	1,398	17	92	64	4	991	18	..

* Excluding Field Service.

† Information not available.

‡ Bazar Valley and Mohmand Field Forces combined.

B.—WOMEN.

TABLE XIX.

RATIOS AND ACTUALS OF ARMIES.

	Northern Army.		Southern Army.		India.*		
	Ratios.	Actuals.	Ratios.	Actuals.	Ratios.	Actuals.	Remaining from 1907.
Strength	1,052		1,741		3,696†		
Constantly sick	35'2	68'77	25'2	43'88	30'5	112'65	
ADMISSIONS—							
Influenza	4'1	8	1'1	2	2'7	10	...
Cholera	1'0	2	1'1	2	1'1	4	...
Small-pox	11'8	23	7'5	13	9'7	36	1
Enteric Fever	20'0	39	5'7	10	13'3	49	2
Malaria	102'5	200	68'4	119	86'3	319	4
Pyrexia of uncertain origin	25'1	49	10'9	19	18'4	68	...
Tubercle of the lungs	2'0	4	3'4	6	2'7	10	3
Pneumonia	2'6	5	1'7	3	2'2	8	1
Respiratory Diseases	11'8	23	7'5	13	9'7	36	3
Dysentery	6'1	12	14'4	25	10'0	37	1
Diarrhœa	15'9	31	11'5	20	13'8	51	1
Anæmia and Debility	35'4	686	240'1	418	298'7	1,104	20
Abortion and other affections connected with pregnancy	27'6	54	21'3	37	24'6	91	3
Affections connected with and consequent on parturition	12'8	25	6'3	11	9'7	36	...
All other diseases peculiar to women	35'3	69	29'9	52	32'8	121	5
ALL CAUSES	807'4	1,576	622'6	1,084	719'7	2,660	60
DEATHS—							
Cholera	1'02	2	5'7	1	8'1	3	Deaths out of hospital.
Small-pox	2'56	5	1'15	2	1'89	7	...
Enteric Fever	3'07	6	5'7	1	1'89	7	...
Malaria	2'56	5	5'7	1	1'62	6	...
Pyrexia of uncertain origin . . . . .	...	...	...	...	...	...	...
Tubercle of the lungs	5'1	1	5'7	1	5'4	2	...
Pneumonia	1'02	2	5'7	1	8'1	3	...
Respiratory Diseases . . . . .	...	...	...	...	...	...	...
Dysentery . . . . .	...	...	...	...	...	...	...
Diarrhœa . . . . .	...	...	...	...	...	...	...
Hepatic Abscess . . . . .	...	...	...	...	...	...	...
Abortion and affections connected with and consequent on parturition . . . . .	...	...	5'7	1	2'7	1	...
ALL CAUSES	2'05	4	1'72	3	1'89	7	...
ALL CAUSES	16'39	32	10'34	18	13'53	50	1
PERCENTAGE IN 100 ADMISSIONS—							
Influenza	5'1		1'8		3'8		
Cholera	1'3		1'8		1'5		
Small-pox	1'46		1'20		1'35		
Enteric Fever	2'47		9'2		1'84		
Malaria	12'69		10'98		11'99		
Pyrexia of uncertain origin	3'11		1'75		2'56		
Tubercle of the lungs	2'5		5'5		3'8		
Pneumonia	3'2		2'8		3'0		
Respiratory Diseases	1'46		1'20		1'35		
Dysentery	7'6		2'31		1'39		
Diarrhœa	1'97		1'85		1'92		
Anæmia and Debility	43'53		38'56		41'50		
Abortion and other affections connected with pregnancy	3'36		3'23		3'31		
Affections connected with and consequent on parturition	1'59		1'01		1'35		
All other diseases peculiar to women	4'44		4'98		4'66		
PERCENTAGE IN 100 DEATHS—							
Cholera	6'2		5'6		6'0		
Small-pox	15'6		11'1		14'0		
Enteric Fever	18'8		5'6		14'0		
Malaria	15'6		5'6		12'0		
Pyrexia of uncertain origin . . . . .	...		...		...
Tubercle of the lungs	3'1		5'6		4'0		
Pneumonia	6'2		5'6		6'0		
Respiratory Diseases . . . . .	...		...		...
Dysentery . . . . .	...		...		...
Diarrhœa . . . . .	...		...		...
Hepatic Abscess . . . . .	...		...		...
Abortion and affections connected with and consequent on parturition . . . . .	...		5'6		2'0		
ALL CAUSES	12'5		16'7		14'0		

*For complete detail of diseases, see Table LIII.

†Including 3 on the line of march.

TABLE XX.

CHOLERA by months, stations, groups and armies.

STATIONS, GROUPS, AND ARMIES.	Average annual strength.	NUMBER OF ADMISSIONS FROM CHOLERA IN EACH MONTH.												Total Admissions.	Admission rate per 1,000 of strength.	Total deaths.	per 1,000 of strength.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.				
Campbellpore and Attock .	24	...	...	...	...	...	...	1	...	...	...	...	...	1	41.7	1	41.67
GROUP VI—UPPER SUB-HIMALAYA . . .	697	...	...	...	...	...	...	1	...	...	...	...	...	1	1.4	1	1.43
Bellary	37	...	...	...	...	...	...	...	1	...	...	...	...	1	27.0	1	27.03
Madras and Poonamallee .	78	...	...	...	...	...	...	...	1	...	...	...	...	1	12.8	...	...
GROUP XI.—SOUTHERN INDIA	302	...	...	...	...	...	...	...	2	...	...	...	...	2	66.	1	3.31
Murree and Lower and Upper Topas	74	...	...	...	...	1	...	...	...	...	...	...	...	1	13.5	1	13.51
GROUP—XIIb:—HILL CONVALESCENT DEPOTS AND SANITARIA	324	...	...	...	...	1	...	...	...	...	...	...	...	1	3.1	1	3.09
INDIA	3,696	...	...	...	...	1	...	1	2	...	...	...	...	4	1.1	3	.81
NORTHERN ARMY . . .	1,952	...	...	...	...	1	...	1	...	...	...	...	...	2	1.0	2	1.03
SOUTHERN ,	1,741	...	...	...	...	...	...	...	2	...	...	...	...	2	1.1	1	.57

* Stations where cholera did not occur are not shown in this table.

TABLE XXI.

ENTERIC FEVER by months, stations, groups, and armies.

STATIONS,* GROUPS, AND ARMIES.	Average annual strength.	NUMBER OF ADMISSIONS FROM ENTERIC FEVER IN EACH MONTH.												Total Admissions.	Admission rate per 1,000 of strength.	Total deaths.	Death rate per 1,000 of strength.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.				
Rangoon and Port Blair	83	...	...	...	...	...	...	...	...	...	...	1	...	1	12'0	...	...
GROUP I.—BURMA COAST AND BAY ISLANDS	83	...	...	...	...	...	...	...	...	...	...	1	...	1	12'0	...	...
Thayetmyo	19	...	...	...	...	...	...	...	...	1	...	...	...	1	52'6	...	...
GROUP II.—BURMA INLAND	52	...	...	...	...	...	...	...	...	1	...	...	...	1	19'2	...	...
Fyzabad	42	...	...	...	...	1	...	...	...	...	...	...	...	1	23'8	...	...
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR	321	...	...	...	...	1	...	...	...	...	...	...	...	1	3'1	...	...
Shahjehanpur	14	...	...	...	...	...	...	1	...	...	...	...	...	1	71'4	...	...
Meerut	123	...	...	...	...	...	...	...	...	...	...	3	...	3	24'4	1	8'13
Ambala	111	...	...	...	...	...	...	1	...	...	...	...	...	1	9'0	1	9'01
Ferozepore	55	...	...	...	...	...	1	...	...	...	...	...	...	1	18'2	...	...
Sialkot	58	...	5	...	...	...	...	...	...	...	...	...	...	5	86'2	1	17'24
Rawalpindi	154	...	...	...	1	...	1	...	...	...	1	1	...	4	26'0	...	...
Campbellpore and Attock	24	...	...	...	...	...	...	...	...	...	1	...	...	1	41'7	1	41'67
GROUP VI.—UPPER SUB-HIMALAYA	697	...	5	...	1	...	2	2	...	...	2	4	...	16	23'0	4	5'74
Nowshera	44	...	...	1	...	...	...	...	...	...	1	1	...	3	68'2	...	...
Multan	29	...	...	...	...	...	1	...	...	...	...	...	...	1	34'5	...	...
GROUP VII.—N. W. FRONTIER, INDUS VALLEY AND N. W. RAJPUTNA	250	...	...	1	...	...	1	...	...	...	1	1	...	4	16'0	...	...
Jhansi	45	...	...	...	...	...	...	...	...	1	...	...	...	1	22'2	1	22'22
GROUP VIII.—SOUTH-EASTERN RAJPUTANA, CENTRAL INDIA, AND GUJARAT	241	...	...	...	...	...	...	...	...	1	...	...	...	1	4'1	1	4'15
Secunderabad	158	...	...	...	...	...	...	...	...	...	1	...	...	1	6'3	...	...
Kirkee	122	...	...	...	...	...	...	...	1	...	...	...	...	1	8'2	...	...
Ahmednagar	36	...	1	...	...	...	...	...	...	...	...	...	...	1	27'8	...	...
GROUP IX.—DECCAN	506	...	1	...	...	...	...	...	1	...	1	...	...	3	5'3	...	...
Bangalore	165	1	...	...	...	...	...	...	...	1	...	...	...	2	1'21	...	...
GROUP XI.—SOUTHERN INDIA	302	1	...	...	...	...	...	...	...	1	...	...	...	2	6'6	...	...
Ranikhet and Chaubuttia	101	...	...	...	...	1	...	...	...	...	...	...	...	1	9'9	...	...
Dagshai	56	...	...	...	...	...	...	1	...	...	...	...	...	1	17'9	...	...
Subath	24	...	...	...	...	1	...	...	...	...	...	...	...	1	41'7	...	...
Camp Gharial	21	...	...	...	...	1	...	...	...	...	...	...	...	1	47'6	...	...
„ Barian and Khairagali	33	...	...	...	...	1	...	1	...	2	...	...	...	4	121'2	...	...
Cherat	19	...	...	...	...	...	1	...	...	1	...	...	...	2	105'3	1	2'63
Quetta	127	...	...	...	...	...	1	...	1	...	...	...	...	2	15'7	...	...
GROUP XIIa.—HILL STATIONS	73	...	...	...	...	4	2	2	1	3	...	...	...	12	20'9	1	1'75
Dalhousie	98	...	...	...	...	...	...	...	...	...	1	...	...	1	10'2	...	...
Murree and Lower and Upper Topas	74	...	...	...	1	2	2	2	...	...	...	...	...	7	04'6	1	13'51
GROUP XIIb.—HILL CON-VALESCENT DEPÔTS AND SANITARIA	326	...	...	...	1	2	2	2	...	...	1	...	...	8	24'5	1	3'07
INDIA	3,696	1	6	1	2	7	7	6	2	6	5	6	...	49	13'3	7	1'89
NORTHERN ARMY	1,952	...	5	1	2	6	7	6	...	3	4	5	...	39	20'0	6	3'07
SOUTHERN „	1,741	1	1	...	...	...	1	...	2	3	1	1	...	10	5'7	1	'57

* Stations where Enteric Fever did not occur are not shown in this table.

C.—CHILDREN.

TABLE XXII.

RATIOS AND ACTUALS OF ARMIES.

								Northern Army.		Southern Army.		India.*								
Strength								3,007		2,808		5,819‡								
								Ratios.		Actuals.		Ratios.		Actuals.		Remaining from 1907.				
Constantly sick								17'1		51'27		15'5		43'53			16'3		94'80	
ADMISSIONS—																				
Influenza								1'3		4		...		...		7		4		...
Cholera								7		2		1'1		3		9		5		...
Small-pox								2'0		6		7		2		1'4		8		2
Measles								37'2		112		27'8		78		32'7		190		11
Whooping Cough								3'3		10		9'3		26		6'2		36		...
Enteric Fever								4'0		12		3'2		9		3'6		21		...
Malaria								64'8		195		59'1		166		62'0		361		5
Pyrexia of uncertain origin								24'3		73		19'6		55		22'0		128		...
Tubercular Diseases								2'7		8		1'4		4		2'1		12		...
Respiratory Diseases								42'9		129		34'5		97		38'8		226		4
Dysentery								6'7		20		9'6		27		8'1		47		...
Diarrhœa								60'2		181		43'4		122		52'1		303		2
Eye Diseases								21'0		63		50'9		143		35'4		206		...
ALL CAUSES								464'6		1,397		435'2		1,222		450'1		2,619		47
DEATHS—																		Deaths out of hospital.		
Cholera								6'7		2		3'6		1		5'2		3		...
Small-pox								3'3		1		...		...		1'7		1		...
Diphtheria								1'33		4		...		...		6'9		4		...
Enteric Fever								3'3		1		3'6		1		3'4		2		...
Malaria								3'66		11		7'1		2		2'23		13		...
Pyrexia of uncertain origin								3'3		1		...		...		1'7		1		...
Tubercular Diseases								1'67		5		1'07		3		1'37		8		...
Convulsions								4'32		13		2'85		8		3'61		21		...
Respiratory Diseases								5'32		16		3'92		11		4'64		27		...
Teething								2'00		6		1'78		5		1'89		11		1
Dysentery								2'00		6		3'20		9		2'58		15		...
Diarrhœa								7'32		22		8'55		24		7'91		46		1
Anæmia, Debility, and Premature birth								6'98		21		3'20		9		5'16		30		...
ALL CAUSES								59'20		178		40'60		114		50'18		292		4
PERCENTAGE IN 100 ADMISSIONS—																				
Influenza								2'9				...				1'5				
Cholera								1'4				2'5				1'9				
Small-pox								4'3				1'6				3'1				
Measles								8'02				6'38				7'25				
Whooping Cough								7'2				2'13				1'37				
Enteric Fever								8'6				7'4				8'0				
Malaria								13'96				13'58				13'78				
Pyrexia of uncertain origin								5'23				4'50				4'89				
Tubercular Diseases								5'7				3'3				4'6				
Respiratory Diseases								9'23				7'94				8'63				
Dysentery								1'43				2'21				1'79				
Diarrhœa								12'06				9'98				11'57				
Eye Diseases								4'51				11'70				7'87				
PERCENTAGE IN 100 DEATHS—																				
Cholera								1'1				9				1'0				
Small-pox								6				...				3				
Diphtheria								2'2				...				1'4				
Enteric Fever								6				9				7				
Malaria								6'2				1'8				4'5				
Pyrexia of uncertain origin								6				...				3				
Tubercular Diseases								2'8				2'6				2'7				
Convulsions								7'3				7'0				7'2				
Respiratory Diseases								9'0				9'6				9'2				
Teething								3'4				4'4				3'8				
Dysentery								3'4				7'9				5'1				
Diarrhœa								12'4				21'1				15'8				
Anæmia, Debility, and Premature birth								11'8				7'9				10'3				

* For complete detail of diseases, see Table LIII.
‡ Including 4 on the line of march.

CHILDREN, 1908.

TABLE XXIII.

CHOLERA by months, stations, groups and armies.

STATIONS,* GROUPS, AND ARMIES.	Average annual strength.	NUMBER OF ADMISSIONS FROM CHOLERA IN EACH MONTH.												Total Ad- missions.	Admission rate per 1,000 of strength.	Total deaths.	Death rate per 1,000 of strength.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.				
Rawalpindi	225	...	...	...	...	2	...	...	...	...	...	...	...	2	8·9	2	8·89
GROUP VI.—UPPER SUB- HIMALAYA	1,031	...	...	...	...	2	...	...	...	...	...	...	...	2	1·9	2	1·94
Madras and Poonamallee . .	139	...	...	...	...	...	...	...	...	3	...	...	...	3	21·6	1	7·19
GROUP XI.—SOUTHERN INDIA .	529	...	...	...	...	...	...	...	...	3	...	...	...	3	5·7	1	1·89
INDIA	5,819	...	...	...	...	2	...	...	...	3	...	...	...	5	·9	3	·52
NORTHERN ARMY	3,007	...	...	...	...	2	...	...	...	...	...	...	...	2	·7	2	·67
SOUTHERN ARMY	2,808	...	...	...	...	...	...	...	...	3	...	...	...	3	1·1	3	·36

* Stations where cholera did not occur are not shown in this table.

CHILDREN, 1908.

TABLE XXIV.

ENTERIC FEVER by months, stations, groups and armies.

STATIONS,* GROUPS, AND ARMIES.	Average annual strength.	NUMBER OF ADMISSIONS FROM ENTERIC FEVER IN EACH MONTH.												Total ad- missions.	Admission rate per 1,000 of strength.	Total deaths.	Death rate per 1,000 of strength.
		Jan.	Feb.	Mar.	Apl.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.				
Meerut	181	...	...	...	...	...	...	...	...	...	...	I	...	I	5'5	...	...
Ferozepore	89	...	...	...	...	I	...	...	...	...	...	...	...	I	11'2	...	...
Sialkot	84	...	3	...	...	...	...	...	...	...	...	...	...	3	35'7	...	...
Rawal pindi	225	...	...	...	I	...	...	...	...	...	I	...	...	2	8'9	...	...
GROUP VI.—UPPER SUB-HIMA- LAYA.	1,031	...	3	...	I	I	...	...	...	...	I	I	...	7	6'8	...	...
Nasirabad	43	...	...	...	...	...	...	...	...	I	...	...	...	I	23'3	...	...
Jhansi	74	...	...	...	...	...	...	...	...	...	I	...	...	I	13'5	...	...
GROUP VIII.—SOUTH-EASTERN RAJPUTANA, CENTRAL IN- DIA, AND GUJARAT.	345	...	...	...	...	...	...	...	...	I	I	...	...	2	5'8	...	...
Belgaum	74	...	...	...	...	...	...	...	...	...	...	I	...	I	13'5	...	...
Kirkee	216	...	...	...	...	...	...	...	...	I	...	...	...	I	4'6	...	...
GROUP IX.—DECCAN	906	...	...	...	...	...	...	...	...	I	...	I	...	2	2'2	...	...
Bellary	62	...	I	...	...	...	...	...	...	...	...	...	...	I	16'1	...	...
Bangalore	291	...	...	...	...	...	...	...	...	...	...	2	I	3	10'3	...	...
GROUP XI.—SOUTHERN INDIA	529	...	I	...	...	...	...	...	...	...	...	2	I	4	7'6	...	...
Dalhousie	98	...	...	...	...	I	...	I	I	...	...	...	...	3	30'6	...	...
Murree and Lower and Upper Topas	127	...	...	...	...	...	I	I	...	...	...	...	...	2	15'7	I	7'87
Purandhar	21	...	...	...	...	I	...	...	...	...	...	...	...	I	47'6	I	47'62
GROUP XIIb.—HILL CONVALES- CENT DEPÔTS AND SANITARIA	548	...	...	...	...	2	I	2	I	...	...	...	...	6	10'9	2	3'65
INDIA	5,819	...	4	...	I	3	I	2	I	2	2	4	I	21	3'6	2	'34
NORTHERN ARMY	3,007	...	3	...	I	2	I	2	I	...	I	I	...	12	4'0	I	'33
SOUTHERN „	2,808	...	I	...	...	I	...	...	...	2	I	3	I	9	3'2	I	'36

* Stations where Enteric Fever did not occur are not shown in this table.

CHILDREN, 1908.

TABLE XXV.

DEATHS OF CHILDREN BY AGES AND CAUSES.

AGE AT DEATH.	Cholera.	Small-pox.	Diphtheria.	Enteric Fever.	Malaria.	Pyrexia of uncertain origin.	Tubercular Diseases.	Convulsions.	Respiratory Diseases.	Teething.	Dysentery.	Diarrhoea.	Anæmia, Debility and Premature birth.	ALL CAUSES.	Average annual strength.	Death rate per 1,000 of strength.	Liability. (The previous column expressed in percentages).
Under 6 months . . . . .	...	...	...	1	3	1	1	13	11	3	1	18	25*	124	583	212.69	46.80
Between 6 and 12 months . . . . .	...	...	...	...	2	...	4	3	4	8	7	19	2	72	612	117.65	25.89
„ 12 and 18 „ . . . . .	...	...	...	...	2	...	1	5	5	...	2	9	2	39	607	64.25	14.14
„ 18 and 24 „	2	...	1	...	2	...	...	...	3	...	2	...	...	21	624	33.65	7.40
„ 2 years and 5 years	1	1	2	...	3	...	2	...	3	...	1	...	...	28	1,508	18.57	4.09
„ 5 „ and 10 „ . . . . .	...	...	1	1	1	...	...	...	1	...	1	...	...	7	1,199	5.84	1.29
„ 10 „ and 15 „ . . . . .	...	...	...	...	...	...	...	...	...	...	1	...	...	1	551	1.81	.40
„ 15 „ and upwards . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	131	...	...
TOTAL	3	1	4	2	13	1	8	21	27	11	15	46	30	292	5,819†	50.18	100.00

* Seventeen Immaturity.
† Includes four not classed on the line of march.

II.—NATIVE TROOPS, 1908.

TABLE H.
STATIONS by ARMIES.

STATIONS.	Height above the sea-level in feet.*	Authority for height.†	STATIONS.	Height above the sea-level in feet.*	Authority for height.†	STATIONS.	Height above the sea-level in feet.*	Authority for height.†
NORTHERN ARMY:—			SOUTHERN ARMY— <i>contd.</i>			SOUTHERN ARMY— <i>concl'd.</i>		
Abbottabad	4,165	I. B.	Agar	1,671	S. G.	Sirdarpore	1,659	S. G.
Allahabad	298	S. G.	Ahmedabad	170	"	Sitabaldi	1,236	"
Agra	554	"	Ahmednagar	2,125	"	St. Thomas' Mount	250	"
Alipore	21	I. B.	Ajmir	1,627	"	Sutna	1,040	M. D.
Almora	5,494	S. G.	Alirajpore	977	"	Todgarh	2,855	S. G.
Ambala	902	"	Aurangabad	1,865	M. D.	Trichinopoly	274	"
Amritsar	756	"	Baghdad . . . . .	...	...	Trivandrum	198	M. D.
Attock	1,102	G. T.	Bangalore	3,021	S. G.	Udaipur	1,950	S. G.
Bakloh	4,585	S. G.	Baroda	115	"	EXTRA INDIA NOT IN THE INDIAN COMMAND.		
Baragali	7,800	M. O.	Beawar	1,465	"	Colombo		
Bareilly	560	S. G.	Belgaum	2,473	"	Singapore		
Barrackpore	24	"	Bellary	1,483	"	Tientsin		
Benares	256	"	Bhamo	351	"	} North China		
Buxa	2,457	"	Bhuj	341	"	Lutai		
Cawnpore	417	"	Bolarum	1,890	I. B.	Shan hai Kwan		
Chakdara	2,500	I. B.	Bombay (Colaba)	20	S. G.	Tongshan		
Cherat	4,546	S. G.	Bushire	40	I. B.	Hong Kong—S. China		
Chitral	4,980	"	Camp Lovedale . . . . .	...	...	
Chumbi (including Phari-jong Tibet.)	9,360	I. .	Cannanore	47	S. G.			
Dargai . . . . .	...	...	Chabbar . . . . .	...	...	
Dehra Dun	2,229	S. G.	Chaman	5,488	S. G.			
Delhi	715	"	Deesa	470	"			
Dera Ismail Khan	571	"	Deoli	1,122	"			
Dharmasala	6,111	"	Erinpura	876	"			
Dibrugarh	342	"	Fort Sandeman	4,522	I. B.			
Dinapore	171	"	Goona	1,617	S. G.			
Drazinda	1,600	I. B.	Gumbaz	3,050	I. B.			
Edwardesabad	1,279	"	Gwalior	1,089	S. G.			
Fatehgarh	444	"	Hindu Bagh	5,675	"			
Ferozepore	645	S. G.	Hyderabad	134	I. B.			
Fort Jamrud	1,610	I. B.	Indore	1,806	S. G.			
Fort Lockhart	6,473	"	Jacobabad	181	"			
Fort William	17	S. G.	Jaipur	1,582	"			
Fort Zam	1,350	I. B.	Jask . . . . .	...	...	
Fyzabad	336	S. G.	Jhansi	860	S. G.			
Gangtok	5,000	I. B.	Jubbulpore	1,306	"			
Gyantse	12,900	"	Kampti	930	"			
Hangu	3,650	I. B.	Karachi	28	"			
Jandola	2,430	"	Kherwara	1,050	"			
Jatta	1,000	"	Khormaksar	50	I. B.			
Jhelum	827	S. G.	Kirkee	1,837	S. G.			
Jullundar	900	"	Kila Saifulla	5,090	I. B.			
Jutogh	6,371	"	Kotra	1,033	S. G.			
Kalabagh	7,936	I. B.	Loralai	4,450	"			
Khairagali	7,678	S. G.	Madras	15	"			
Kila Drosh	4,250	I. B.	Mandalay (Fort Dufferin)	249	"			
Kohat	1,768	"	Maymyo	3,508	"			
Kohima	4,500	"	Meiktila	860	"			
Lahore Cantonment	706	S. G.	Mhow	1,903	S. G.			
Lansdowne	6,260	"	Mir Ali Khel	3,620	I. B.			
Lucknow	400	"	Mount Abu	3,960	S. G.			
Malakand Fort	3,889	"	Murgha	5,038	I. B.			
Manipur	2,619	"	Musa Khel	4,600	"			
Mardan . . . . .	...	...	Muscat . . . . .	...	...	
Meerut	739	S. G.	Nasirabad	1,461	S. G.			
Multan	402	"	Neemuch	1,613	"			
Naini Tal	6,400	"	Nowgong	770	I. B.			
Nowshera	1,100	M. O.	Ootacamund	7,216	S. G.			
Peshawar	1,170	I. B.	Perim	249	I. B.			
Rawalpindi	1,707	S. G.	Pishin	5,157	S. G.			
Rurki	884	"	Poona	1,909	"			
Sadiya	440	M. H. I.	Port Blair	85	"			
Shillong	4,987	S. G.	Quetta	5,511	"			
Sialkot	829	"	Rajkot	417	"			
Simla	7,230	"	Rangoon	14	"			
Thal	2,820	I. B.	Robat . . . . .	...	...	
			Santa Cruz . . . . .	...	...	
			Satara	2,183	S. G.			
			Saugor	1,753	"			
			Secunderabad	1,732	"			
			Sehore	1,617	"			
			Shelabagh	6,380	I. B.			
			Sibi	489	S. G.			
SOUTHERN ARMY:—								
Aden	26	S. G.						

* These are usually the heights above sea-level of the survey-marks or of the mercury-surface in barometer-cisterns in the stations.
† S. G. = Surveyor-General of India; M. H. I. = Dr. Macnamara's "Himalayan India"; M. D. = Meteorological Department; I. B. = Intelligence Branch of the Division of the Chief of the Staff; M. O. = Medical Officers in charge of Station Hospitals in their Sanitary Reports.

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TABLE XXVI.

RATIOS of ARMIES.

The ratios of admissions and deaths to strength are taken from Table XXVIII.

The actuals will be found in Table XXIX.

RATIO PER 1,000 OF THE AVERAGE STRENGTH.			
	Northern Army.	Southern Army.	Army of India.*
I.—AVERAGE ANNUAL STRENGTH	62,141	50,822	126,975
II.—CONSTANTLY SICK RATE OF EACH MONTH—			
January	24·7	21·5	22·0
February	21·2	19·5	18·6
March	18·7	18·2	17·8
April	19·4	18·2	18·6
May	21·9	18·0	19·6
June	23·5	17·7	20·9
July	22·1	19·0	20·2
August	24·4	22·4	23·0
September	31·8	25·2	27·7
October	37·0	24·6	29·6
November	36·2	26·0	29·7
December	30·2	23·5	25·4
OF THE YEAR	26·0	21·4	22·8
III.—ADMISSION RATE OF THE YEAR—			
Influenza	2·6	4·4	3·8
Cholera	1·6	·9	1·4
Small-pox	·6	1·3	·8
Enteric Fever	4·0	1·8	2·8
Malaria	368·2	186·3	266·2
Malta Fever	·3	·1	·2
Pyrexia of uncertain origin	15·3	19·9	16·2
Plague	·0	·6	·3
Tubercle of the lungs	3·6	2·6	3·0
Pneumonia	15·8	10·1	12·8
Respiratory Diseases	17·2	22·6	20·2
Dysentery	43·0	35·8	39·5
Diarrhœa	7·9	9·9	8·8
Hepatic { Abscess	·1	·1	·1
{ Congestion and Inflammation	·8	·7	·7
Scurvy	1·2	2·2	1·5
Venereal Diseases	12·8	20·1	15·2
ALL CAUSES	796·6	598·7	674·4
IV.—DEATH RATE OF THE YEAR—			
Cholera	1·24	·55	·91
Small-pox	·02	·04	·02
Enteric Fever	·76	·51	·57
Malaria	·84	·39	·58
Malta Fever . . . . .	...	...	...
Pyrexia of uncertain origin	·13	·06	·09
Plague . . . . .	...	·28	·11
Circulatory Diseases	·21	·16	·17
Tubercle of the lungs	·50	·31	·42
Pneumonia	2·96	1·71	2·20
Respiratory Diseases	·34	·30	·29
Dysentery	·13	·39	·22
Diarrhœa	·02	·12	·06
Hepatic Abscess	·03	...	·02
Anæmia and Debility	·05	·20	·13
ALL CAUSES	8·69	6·30	7·41
V.—PERCENTAGE IN 100 ADMISSIONS—			
Influenza	·33	·74	·56
Cholera	·21	·16	·20
Small-pox	·07	·22	·12
Enteric Fever	·51	·31	·41
Malaria	46·23	31·11	39·47
Malta Fever	·04	·01	·03
Pyrexia of uncertain origin	1·92	3·32	2·40
Plague	·01	·11	·04
Tubercle of the lungs	·45	·43	·44
Pneumonia	1·99	1·69	1·90
Respiratory Diseases	2·16	3·77	3·00
Dysentery	5·40	5·97	5·86
Diarrhœa	·99	1·66	1·30
Hepatic { Abscess	·01	·02	·01
{ Congestion and Inflammation	·10	·12	·11
Scurvy	·15	·36	·22
Venereal Diseases	1·01	3·16	2·26
VI.—PERCENTAGE IN 100 DEATHS—			
Cholera	14·25	8·75	12·33
Small-pox	·19	·62	·32
Enteric Fever	8·70	8·12	7·70
Malaria	9·63	6·25	7·26
Malta Fever . . . . .	...	...	...
Pyrexia of uncertain origin	1·48	·94	1·17
Plague . . . . .	...	4·38	1·49
Circulatory Diseases	2·41	2·50	2·34
Tubercle of the lungs	5·74	5·00	5·62
Pneumonia	34·07	27·19	29·65
Respiratory Diseases	3·09	4·69	3·91
Dysentery	1·48	6·25	2·98
Diarrhœa	·19	1·88	·85
Hepatic Abscess	·37	...	·21
Anæmia and Debility	·50	3·12	1·70

* For complete detail of diseases see Table LIII.

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TABLE XXVII.

RATIOS of GEOGRAPHICAL GROUPS.

The ratios of admissions and deaths to strength are taken from Table XXVIII.

The actuals will be found in Table XXIX.

RATIO PER 1,000 OF THE AVERAGE STRENGTH.													
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	
	Burma Coast and Bay Islands.	Burma Inland.	Assam.	Bengal and Orissa.	Gangetic Plain and Chutia Nagpur.	Upper Himalaya.	N.-W. Frontier, Indus Valley, and N.-W. Rajputana.	S.-E. Rajputana, Central India, and Gujarat.	Decan.	Western Coast.	Southern India.	Hill Stations.	Army of India.*
I.—AVERAGE ANNUAL STRENGTH	1,286	2,823	923	2,219	5,972	21,426	17,733	12,114	17,631	1,707	4,623	23,465	126,975
II.—CONSTANTLY SICK RATE OF EACH MONTH—													
January	14'9	32'7	15'1	34'6	14'2	21'3	31'6	19'1	18'9	45'5	33'8	23'3	22'0
February	19'6	25'2	15'9	18'2	14'2	16'1	29'3	19'4	15'9	36'6	25'5	22'6	18'6
March	16'8	32'3	17'3	18'3	12'7	13'9	25'0	16'6	16'4	30'2	19'7	19'3	17'8
April	15'0	27'2	21'6	19'1	14'2	16'5	23'3	16'8	18'4	28'9	18'7	18'3	18'6
May	19'1	23'7	20'5	17'6	20'1	19'6	25'9	16'4	19'5	25'2	14'6	18'9	19'6
June	24'3	24'1	22'5	19'1	15'0	19'8	30'5	14'6	16'6	28'7	17'9	21'6	20'9
July	23'7	28'8	23'7	31'6	14'3	17'9	27'2	15'5	17'6	26'3	23'5	31'4	20'2
August	21'7	27'5	24'0	33'9	21'6	19'9	27'6	20'4	20'4	27'4	23'7	26'0	23'0
September	22'8	23'8	27'9	39'4	25'4	31'4	36'2	28'9	21'6	32'8	19'7	29'2	27'7
October	16'7	27'9	32'4	33'3	31'7	38'4	44'5	31'1	21'3	35'9	20'6	26'3	29'6
November	22'3	26'8	27'9	35'2	31'2	35'2	47'7	30'3	21'6	39'4	19'2	27'9	29'7
December	16'9	28'1	24'9	30'1	24'2	29'2	37'9	24'2	21'8	43'8	14'9	24'7	25'4
OF THE YEAR	18'7	27'3	22'8	27'9	20'1	23'2	32'4	21'3	19'2	34'0	20'8	23'4	22'8
III.—ADMISSION RATE OF THE YEAR—													
Influenza . . . . .	...	...	...	5	2	1'7	3'3	1'0	9'2	1'8	2	4'8	3'8
Cholera . . . . .	...	...	2'2	...	2'7	3	1'5	...	1'9	...	2'4	1'8	1'4
Small-pox . . . . .	...	...	...	...	1'3	1'1	2	5	3'0	1'2	2	2	8
Enteric Fever . . . . .	...	2'1	...	9	2	5'2	4'2	1'2	2'4	2'3	4	3'7	2'8
Malaria	130'6	230'3	446'4	240'2	252'2	334'3	544'3	288'8	106'9	300'5	155'5	236'3	266'2
Malta Fever . . . . .	...	...	...	...	...	7	1	2	...	...	...	1	2
Pyrexia of uncertain origin	112'8	3'5	9'8	25'7	7'5	22'4	7'8	2'6	23'1	12'9	17'7	18'9	16'2
Plague . . . . .	...	4	...	...	...	1	...	...	1'0	1'2	2'2	1	3
Tubercle of the lungs	1'6	1'1	...	5'4	5'5	2'9	3'9	3'0	1'4	2'9	1'9	3'9	3'0
Pneumonia	2'3	6'4	8'7	9'9	13'9	14'1	21'3	12'3	6'6	5'9	7'8	15'5	12'8
Respiratory Diseases	28'0	20'5	26'0	29'7	11'2	11'7	22'8	18'2	16'4	72'1	17'1	24'8	30'2
Dysentery	83'2	22'7	33'6	81'1	55'4	39'5	53'3	23'9	30'7	70'3	35'0	33'2	39'5
Diarrhoea	3'1	18'1	19'5	2'3	2'2	5'0	13'8	6'9	5'4	17'0	6'9	11'8	8'8
Hepatic { Abscess . . . . .	...	...	...	...	2	0	1	...	2	...	6	...	1
{ Congestion . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Inflammation	8	...	...	2'3	3	7	7	5	7	1'8	4	1'1	7
Scurvy . . . . .	...	...	...	7'7	8	5	2'3	2'5	6	6'4	...	2'0	1'5
Venereal Diseases	13'2	13'5	23'8	16'7	15'2	13'9	8'7	17'0	23'7	53'3	26'0	13'7	15'2
ALL CAUSES	632'2	661'0	881'9	730'5	603'6	703'7	1,115'6	686'9	485'3	920'3	560'7	624'8	674'4
IV.—DEATH RATE OF THE YEAR—													
Cholera . . . . .	...	...	2'17	...	1'34	61	1'41	08	79	...	1'95	1'41	91
Small-pox . . . . .	...	...	...	...	...	05	...	08	06	...	...	...	02
Enteric Fever . . . . .	...	...	...	...	...	98	51	58	45	1'76	...	1'07	57
Malaria . . . . .	...	1'42	1'08	45	8'4	56	68	58	17	2'34	...	94	58
Malta Fever . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Pyrexia of uncertain origin . . . . .	...	...	...	45	...	05	17	...	06	...	22	17	09
Plague . . . . .	...	35	...	...	...	...	...	...	34	5	1'30	...	11
Circulatory Diseases . . . . .	...	35	...	...	...	23	06	17	23	59	22	26	17
Tubercle of the lungs . . . . .	...	...	...	1'80	33	37	11	41	11	...	65	85	42
Pneumonia . . . . .	...	2'48	2'17	2'25	3'35	2'75	3'89	1'49	79	1'76	1'51	2'56	2'20
Respiratory Diseases . . . . .	...	...	...	1'35	...	37	23	17	17	59	87	47	29
Dysentery	78	...	...	...	...	14	23	25	23	1'17	87	17	22
Diarrhoea . . . . .	...	...	...	...	...	05	...	17	...	...	...	17	06
Hepatic Abscess . . . . .	...	...	...	...	...	...	06	...	...	...	...	04	02
Anæmia and Debility . . . . .	...	...	...	...	...	09	11	08	11	...	22	13	13
ALL CAUSES	2'33	4'96	5'42	6'76	7'87	7'42	8'85	5'20	5'22	9'37	9'30	9'89	7'41
V.—PERCENTAGE IN 100 ADMISSIONS—													
Influenza . . . . .	...	...	...	06	03	24	29	14	1'90	19	04	77	56
Cholera . . . . .	...	...	25	...	44	11	14	...	40	...	42	29	20
Small-pox . . . . .	...	...	...	...	22	15	02	07	62	13	04	03	12
Enteric Fever . . . . .	...	32	...	12	03	74	38	17	50	25	08	59	41
Malaria	20'66	34'83	50'61	32'88	41'78	47'50	48'79	42'04	22'03	32'65	27'74	37'82	39'47
Malta Fever . . . . .	...	...	...	...	...	10	01	04	...	...	...	02	03
Pyrexia of uncertain origin	17'84	54	1'11	3'52	1'25	3'19	70	37	477	1'40	3'16	3'02	2'40
Plague . . . . .	...	05	...	...	...	01	...	...	21	13	39	02	04
Tubercle of the lungs	25	16	...	74	92	42	35	43	28	32	35	63	44
Pneumonia	37	96	98	1'36	2'30	2'00	1'91	1'79	1'36	64	1'39	2'48	1'90
Respiratory Diseases	4'43	3'11	2'95	4'07	1'86	1'66	2'04	2'64	3'39	7'83	3'05	3'97	3'00
Dysentery	13'16	3'43	3'81	11'10	9'18	5'61	4'78	3'49	6'32	7'64	6'25	5'31	5'86
Diarrhoea	49	2'73	2'21	31	36	71	1'23	1'01	1'11	1'85	1'23	1'88	1'50
Hepatic { Abscess . . . . .	...	...	...	...	03	01	01	...	05	...	12	...	01
{ Congestion . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
{ Inflammation	12	...	...	31	06	11	07	07	15	19	08	18	11
Scurvy . . . . .	...	...	...	1'05	14	07	20	36	12	70	...	33	22
Venereal Diseases	2'09	2'04	2'70	2'28	2'52	1'98	78	2'48	4'88	5'79	4'63	2'19	2'26
VI.—PERCENTAGE IN 100 DEATHS—													
Cholera . . . . .	...	...	40'0	...	17'0	8'2	15'9	1'6	15'2	...	20'9	14'2	12'33
Small-pox . . . . .	...	...	...	...	...	6	...	1'6	1'1	...	...	...	32
Enteric Fever . . . . .	...	...	...	...	...	13'2	5'7	11'1	8'7	18'6	...	10'8	7'76
Malaria . . . . .	...	28'6	20'0	6'7	10'6	7'5	7'6	11'1	3'3	25'0	...	9'5	7'86
Malta Fever . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Pyrexia of uncertain origin . . . . .	...	...	...	6'7	...	6	1'9	...	1'1	...	2'3	1'7	1'17
Plague . . . . .	...	7'1	...	...	...	...	...	...	6'5	6'3	14'0	...	1'49
Circulatory Diseases . . . . .	...	7'1	...	...	...	3'1	6	3'2	4'3	6'3	2'3	2'6	2'34
Tubercle of the lungs . . . . .	...	...	...	26'7	4'3	5'0	1'3	7'9	2'2	...	7'0	8'6	5'63
Pneumonia . . . . .	...	50'0	40'0	33'3	42'6	37'1	43'9	28'6	15'2	18'6	16'3	25'0	29'65
Respiratory Diseases . . . . .	...	...	...	20'0	...	5'0	2'5	3'2	3'3	6'3	9'3	4'7	3'93
Dysentery	33'3	...	...	...	...	1'9	2'5	4'8	4'3	12'5	9'3	1'7	2'98
Diarrhoea . . . . .	...	...	...	...	...	6	...	3'2	...	...	...	1'7	85
Hepatic Abscess . . . . .	...	...	...	...	...	...	6	...	...	...	...	4	21
Anæmia and Debility . . . . .	...	...	...	...	...	1'3	1'3	1'6	2'2	...	2'3	1'3	1'70

* Including Group Extra India. For complete detail of diseases see Table LIII.

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TABLE XXVIII.

RATIOS of STATIONS, GROUPS, and ARMIES.

For actuals see Table XXIX.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION RATE.													2. DEATH RATE.										
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Malta Fever.	Pyrexia of uncertain origin.	Plague.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK RATE.	Syphilis.	Soft Chancre.	Gonorrhœa.
Port Blair . . .	279 {	...	...	...	...	276'0	...	32'3	...	...	3'6	...	28'7	89'6 3'58	10'8	...	3'6	...	25'1	28'7	709'7 3'58	17'9	7'2	10'8	10'8
Rangoon . . .	1,007 {	...	...	...	...	90'4	...	135'1	...	...	1'0	3'0	27'8	81'4	1'0	...	...	...	18'9	8'9	610'7 1'99	18'9	...	6'0	3'0
GROUP I.—BURMA COAST AND BAY ISLANDS. }	1,286 {	...	...	...	...	130'6	...	112'8	...	...	1'6	2'3	28'0	83'2 78	3'1	...	8	...	20'2	13'2	632'2 2'33	18'7	1'6	7'0	4'7
Meiktila . . .	606 {	...	...	...	3'3	146'9	...	6'6	...	...	1'7	8'3	9'9	31'4	8'3	...	...	...	11'6	19'8	541'3	29'7	9'9	3'3	6'6
Fort Dufferin	1,353 {	...	...	...	1'5	194'4 1'48	...	4'4	...	3'0 74	1'5	5'2 2'22	29'6	11'1	15'5	...	...	...	7'4	13'3	606'1 4'43	23'7	2'2	4'4	6'7
Bhamo . . .	864 {	...	...	...	2'3	344'9 2'31	...	...	1'2 1'16	2'3	...	6'9 4'63	13'9	34'7	28'9	...	...	...	26'6	9'3	831'0 9'26	31'2	5'8	2'3	1'2
GROUP II.—BURMA INLAND }	2,823 {	...	...	...	2 1	230'3 1'42	...	3'5	4 35	2'1 35	1'1	6'4 2'48	20'5	22'7	18'1	...	...	...	14'2	13'5	661'0 4'96	27'3	5'0	3'5	5'0
Manipur . . .	551 {	...	3'6 3'63	...	...	346'6 1'81	...	16'3	...	...	...	12'7 3'63	21'8	50'8	32'7	...	...	...	20'0	27'2	834'8 9'07	23'6	16'3	1'8	9'1
Sadiya . . .	50 {	...	...	...	...	480'0	...	...	...	...	...	...	60'0	...	...	...	...	...	...	...	860'0	20'0	...	...	...
Dibrugarh . .	322 {	...	...	...	...	611'8	...	...	...	3'1	...	3'1	28'0	9'3	...	...	...	...	3'1	21'7	965'8	21'7	9'3	6'2	6'2
GROUP III.—ASSAM . }	923 {	...	2'2 2'17	...	...	446'4 1'08	...	9'8	...	1'1	...	8'7 2'17	26'0	33'6	19'5	...	...	...	13'0	23'8	881'9 5'42	22'8	13'0	3'3	7'6
Fort William	650 {	...	...	...	1'5	129'2	...	70'8 1'54	...	3'1	1'5 1'54	13'8	26'2 1'54	56'9	1'5	...	4'6	13'8	47'7	35'4	686'2 4'62	27'7	9'2	21'5	4'6
Alipore . . .	741 {	1'3	...	...	1'3	222'7 1'35	...	5'4	...	2'7	9'4 2'70	10'8 4'05	47'2	47'2	2'7	...	1'3	2'7	27'0	13'5	539'8 8'10	24'3	2'7	2'7	8'1
Barrackpore.	688 {	...	...	...	...	366'3	...	1'5	...	2'9	2'9 1'45	4'4 2'91	14'5 2'91	143'9	2'9	...	...	8'7	17'4	4'4	941'9 8'72	30'5	1'5	1'5	1'5
Buxa . . .	140 {	...	...	...	...	228'6	...	42'9	...	...	14'3	14'3	28'6	64'3	...	...	7'1	...	...	7'1	907'1	35'7	7'1	...	...
GROUP IV.—BENGAL AND ORISSA }	2,219 {	5	9	240'2	...	25'7	...	2'7	5'4	9'9	29'7	81'1	2'3	...	2'3	7'7	28'4	16'7	730'5 6'76	27'9	4'5	7'7	4'5

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TABLE XXVIII—continued.

RATIOS of STATIONS, GROUPS, and ARMIES.

For actuals see Table XXIX.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION RATE.								2. DEATH RATE.															
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Malta Fever.	Pyrexia of uncertain origin.	Plague.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Venereal Diseases.	ALL CAUSES.	CONSTANTLY SICK RATE.	Syphilis.	Soft Chancere.	Gonorrhœa.
B.																									
Dinapore . . .	620 {	...	...	3'2	...	330'6	...	...	...	1'6	1'6	24'2	11'3	22'6	...	...	...	...	6'5	6'5	627'4	21'0	1'6	1'6	3'2
Benares . . .	484 {	...	...	...	...	146'7	...	...	...	4'1	8'3	6'2	26'9	51'7	6'2	...	...	...	6'2	12'4	502'1	20'7	2'1	4'1	6'2
Allahabad . . .	1,096 {	...	9	1'8	...	313'0	...	8'2	...	2'7	1'8	4'6	4'6	105'8	3'6	...	9	...	24'6	16'4	802'2	22'8	5'5	5'5	5'5
Fyzabad . . .	1,106 {	...	9	...	9	226'0	...	...	...	...	...	12'7	10'8	34'4	2'7	...	9	1'8	11'8	18'1	489'2	17'2	11'8	2'7	3'6
Lucknow . . .	1,692 {	...	...	1'8	...	153'1	...	20'1	...	6	6	18'3	10'6	62'1	6	...	...	1'2	1'2	16'5	432'6	14'2	5'3	2'4	8'9
Cawnpore . . .	816 {	1'2	17'2	1'2	...	366'4	...	2'5	...	...	29'4	17'2	13'5	39'2	...	...	...	1'2	23'3	14'7	834'6	30	2'5	3'7	8'6
Fatehgarh . . .	158 {	...	...	...	...	500'0	...	...	...	6'3	6'3	6'3	6'3	6'3	12'7	6'3	...	...	38'0	19'0	898'7	25'3	...	6'3	12'7
GROUP V.—GANGETIC PLAIN AND CENTRAL INDIA NAGPUR.																									
	5,972 {	2	2'7	1'3	2	252'2	...	7'5	...	1'3	5'5	13'9	11'2	55'4	2'2	2	3	8	12'4	15'2	603'6	20'1	5'4	3'3	6'5
A.																									
Bareilly . . .	1,088 {	9	...	9	...	322'6	...	3'7	...	...	1'8	7'4	6'4	60'7	2'8	...	1'8	...	6'4	11'0	601'1	17'5	...	5'5	5'5
Rurki . . .	756 {	...	...	2'6	...	115'1	...	51'6	...	...	1'3	9'3	4'0	13'2	...	...	...	...	23'8	...	374'3	11'9	...	...	...
Dehra Dun . . .	2,916 {	3'8	7	3	24'3	520'4	...	42'5	...	3	3'8	12'0	17'8	48'4	3'8	...	3	1'0	3'1	35'7	1,080'6	44'2	12'7	14'7	8'2
Meerut . . .	1,613 {	...	...	6	...	385'0	...	9'9	...	62	5'0	16'1	8'1	48'4	6'8	...	1'9	6	9'3	29'1	851'8	27'3	8'1	11'2	9'9
Delhi . . .	1,109 {	...	...	3'6	...	601'4	...	...	...	...	1'8	17'1	10'8	32'5	19'8	...	...	...	16'2	12'6	960'3	21'6	3'6	3'6	5'4
Ambala . . .	1,64 {	...	6	1'2	1'8	78'3	6'7	6'1	...	1'8	2'4	7'9	7'9	44'9	6	...	6	...	8'5	10'9	415'9	18'8	4'9	6	5'5
B.																									
Jullundur . . .	1,661 {	...	...	6	1'2	358'2	...	1'2	...	...	3'0	15'1	6'6	33'7	3'0	...	...	1'2	3'0	6'0	646'0	17'5	...	2'4	3'6
Ferozepore . . .	1,825 {	9'3	5	2'2	4'9	438'1	...	6'0	5	1'1	2'2	14'2	9'9	47'6	6'0	...	2'7	...	13'1	13'7	792'4	21'9	6'0	3'8	3'8
Lahore Cantonment	1,641 {	...	1'8	6	6	126'8	1'2	44'5	...	...	1'8	14'6	12'2	46'9	2'4	...	6	...	12'8	3'0	519'2	17'1	6	6	1'8
Amritsa . . .	121 {	...	...	...	...	429'8	...	...	...	8'26	8'3	41'3	8'3	82'6	...	...	...	...	...	16'5	809'9	16'5	...	...	16'5
Sialkot . . .	1,789 {	6	6	...	6'7	220'2	6	14'5	...	...	...	28'5	11'7	36'9	3'9	...	...	6	15'1	9'5	600'9	21'2	4'5	6	4'5
Jhelum . . .	2,929 {	2'0	7	7	3'1	396'0	...	1'0	...	1'4	4'8	12'3	15'0	29'5	5'1	3	3	1'0	17'4	8'9	732'0	21'2	3'4	1'7	3'8
Rawalpindi . . .	2,242 {	...	2'7	1'8	1'8	111'1	4	77'2	4	...	3'1	11'6	15'6	25'0	4'9	...	9	...	11'2	7'1	488'8	17'8	2'2	2'7	2'2
Attock . . .	88 {	...	11'4	...	...	454'5	...	...	...	...	11'4	11'4	11'4	45'5	68'2	...	...	11'4	11'4	22'7	909'1	22'7	...	...	...
GROUP VI.—UPPER SUB-HIMALAYA.																									
	21,426 {	1'7	8	1'1	5'2	334'3	7	22'4	1	5	2'9	14'1	11'7	39'5	5'0	0	7	5	11'0	13'9	703'7	23'2	4'6	4'5	4'8
A.																									
Mardan . . .	823 {	10'9	1'2	...	1'2	228'4	...	9'7	...	...	8'5	37'7	31'6	21'9	2'4	...	1'2	...	7'3	35'2	583'2	25'5	3'6	3'6	27'9
Nowshera . . .	3,434 {	8'7	3'2	6	2'3	265'6	...	8'4	...	2'0	5'5	12'8	20'7	55'6	6'1	3	6	3'8	32'0	6'1	885'0	38'1	4'7	3	1'2
Peshawar . . .	2,426 {	4'5	2'5	...	6'2	647'2	...	5'8	...	...	2'5	22'7	24'7	58'5	11'5	...	4	2'1	16'1	10'3	1,127'8	33'4	4'1	2'5	3'7

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION RATE.												2. DEATH RATE.											
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Malta Fever.	Pyrexia of uncertain origin.	Plague.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Venereal Diseases.	ALL CAUSES.	CONSTANTLY SICK RATE.	Syphilis.	Soft Chancre.	Gonorrhoea.
Fort Jamrud .	86 {	...	...	...	...	279'1	...	11'6	...	...	...	...	11'6	81'4	23'3	...	...	...	...	23'3	662'8	11'6	11'6	...	11'6
Kohat .	2,822 {	4	4	...	5'3	492'9	...	4'6	...	1'1	3'5	20'6	21'6	55'3	14'5	4	1'8	2'1	29'8	5'3	1,058'8	32'6	2'1	4	2'8
		...	35	...	71	1'06	...	...	...	...	...	3'19	...	...	...	35	...	...	...	...	6'73	...	...	...	...
Thal .	107 {	...	...	...	...	1,112'1	...	...	...	...	...	18'7	28'0	121'5	18'7	...	...	...	28'0	...	1,747'7	37'4	...	...	...
		...	...	...	...	...	...	...	...	...	...	9'35	...	...	...	...	...	...	...	...	9'35	...	...	...	...
Edwardesabad .	2,105 {	2'9	2'9	...	8'6	472'2	...	5'2	...	1'9	1'9	16'6	20'9	46'1	12'8	...	5	5	11'4	5'7	1,209'5	31'8	2'4	1'9	1'4
		...	1'90	...	1'43	...	...	...	...	...	...	1'90	...	...	...	...	...	...	...	...	6'18	...	...	...	...
Dera Ismail Khan	2,475 {	4	...	...	3'7	1,111'5	4	12'9	...	4	4'0	31'3	28'3	54'9	26'8	...	8	2'9	11'0	2'4	1,881'2	38'0	1'2	...	1'2
		...	...	...	81	40	...	31	...	...	...	6'07	40	81	...	...	...	...	...	...	11'82	...	...	...	...
Jatta .	59 {	...	...	...	...	898'3	...	...	...	...	...	16'9	84'7	50'8	...	...	...	...	16'9	...	1,423'7	33'9	...	...	...
		...	...	...	...	...	...	...	...	...	...	16'95	...	...	...	...	...	...	...	...	16'95	...	...	...	...
Drazinda .	57 {	...	...	...	...	1,245'6	...	...	...	...	...	17'5	...	210'5	87'7	...	...	...	17'5	...	1,894'7	35'1	...	...	...
	
Fort Zam .	58 {	...	...	...	...	448'3	...	...	...	...	...	...	17'2	69'0	...	...	...	...	...	17'2	965'5	17'2	...	...	...
	
Multan .	1,481 {	...	...	7	4'7	452'4	7	12'2	...	...	2'7	18'2	8'1	33'1	7'4	...	...	7	6'8	6'8	758'9	20'3	2'0	2'7	3'0
		...	...	...	68	1'35	...	...	...	...	...	4'73	...	...	...	...	...	...	...	...	7'43	...	...	...	...
B.																									
Jandola .	181 {	...	...	...	...	1,033'1	...	...	...	5'5	...	5'5	22'1	204'4	71'8	...	...	...	16'6	...	1,602'2	16'6	...	...	...
		...	...	...	...	...	...	...	...	5'52	...	5'52	...	...	...	...	...	...	...	...	22'09	...	...	...	...
Sibi .	70 {	...	...	...	...	228'6	...	57'1	...	...	14'3	42'9	...	71'1	...	...	...	14'3	14'3	28'6	828'6	14'3	14'3	...	14'3
		...	...	...	...	...	...	...	...	...	...	14'29	...	...	...	...	...	...	...	...	14'29	...	...	...	...
C.																									
Jacobabad .	392 {	...	...	...	2'6	563'8	...	...	...	...	10'2	45'9	20'4	63'8	...	...	...	2'6	23'0	35'7	1,081'6	35'7	7'7	15'3	12'8
		...	...	...	...	...	...	...	...	...	...	7'65	...	...	...	...	...	...	...	...	7'65	...	...	...	...
Hyderabad .	602 {	...	3'3	...	...	323'9	...	8'3	...	...	1'7	15'0	15'0	39'9	18'3	...	...	6'6	11'6	11'6	588'0	19'6	1'7	10'0	...
		...	3'32	...	...	1'66	...	...	...	...	...	3'32	...	...	...	...	...	...	1'66	...	9'97	...	...	...	...
Karachi .	555 {	...	...	...	1'8	475'7	...	7'2	...	...	5'4	12'6	52'3	48'6	27'0	...	1'8	1'8	14'4	19'8	1,075'7	32'4	5'4	9'0	5'4
		...	...	...	...	...	...	...	...	...	...	...	3'60	...	...	...	...	...	1'80	...	5'41	...	...	...	...
GROUP VII.—N. W. FRONTIER, INDUS VALLEY, AND NORTH-WESTERN RAJ-PUTANA.	17,733 {	3'3	1'5	2	4'2	544'3	1	7'8	...	9	3'9	21'3	22'8	53'3	13'8	1	7	2'3	18'8	8'7	1,115'6	32'4	3'1	2'0	3'6
		...	1'41	...	51	68	...	17	...	06	11	3'89	23	23	...	06	...	...	11	06	8'85	...	06	...	...

NATIVE TROOPS, 1908.

TABLE XXVIII—continued.

RATIOS of STATIONS, GROUPS, and ARMIES.

For actuals see Table XXIX.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION RATE.										2. DEATH RATE.													
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Malta Fever.	Pyrexia of uncertain origin.	Plague.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Venereal Diseases.	ALL CAUSES.	CONSTANTLY SICK RATE.	Syphilis.	Soft Chancre.	Gonorrhœa.
Bhuj . . .	225 {	...	...	...	...	168'9	...	...	...	8'9 4'44	...	13'3	26'7	...	...	...	...	...	...	31'1	444'4 8'89	13'3	17'8	8'9	4'4
Rajkot . . .	239 {	...	...	...	8'4 4'18	246'9	...	4'2	...	8'4	...	46'0	4'2	...	...	...	25'1	4'2	20'9	564'9 4'18	25'1	8'4	4'2	8'4	
Deesa . . .	656 {	...	...	...	...	146'3	...	1'5	...	7'6 1'52	13'7 3'05	25'9	4'6	1'5	...	...	1'5	7'6	6'1	557'9 7'62	19'8	1'5	3'0	1'5	
Ahmedabad . . .	448 {	...	...	...	...	415'2	...	...	...	4'5	...	20'1 2'23	22'3	55'8	8'9	...	4'5	...	6'7	22'3	977'7 4'46	35'7	11'2	11'2	...
Baroda . . .	637 {	...	...	...	...	701'7 1'57	...	3'1	...	1'6	11'0	20'4 1'57	29'8	39'2	14'1	...	...	20'4	1'6	22'0	1,172'7 4'71	31'4	11'0	9'4	1'6
B																									
Alirajpore . . .	10 {	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sirdarpore . . .	58 {	...	...	...	...	69'0	...	34'5	...	...	...	17'2	...	...	...	...	...	...	17'2	...	482'8	17'2	...	...	...
Kherwara . . .	107 {	...	...	...	...	9'3	...	...	...	...	...	93'5 35	74'8	...	...	...	...	...	9'3	...	495'3 9'35	28'0	...	...	...
Kotra . . .	37 {	...	...	...	...	108'1	...	...	...	...	...	81'1	54'1	27'0	...	...	...	...	...	...	567'6	27'0	...	...	...
Udaipur . . .	11 {	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Todgarh . . .	16 {	...	...	...	...	187'5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	187'5	...	...	...	...
Erinpura . . .	571 {	7'0	...	...	...	136'6	...	1'8	...	...	3'5	15'8	31'5 1'75	24'5 1'75	...	...	...	...	10'5	14'0	707'5 5'25	21'0	5'3	...	8'5
Neemuch . . .	389 {	...	...	...	...	46'3 2'57	...	...	...	5'1	10'3	10'3 5'14	12'9	20'6	2'6	...	2'6	...	...	23'1	344'5 7'71	12'9	7'7	...	15'4
Deoli . . .	595 {	...	...	6'7	...	26'8	...	...	...	1'68	...	11'7 1'68	8'4	6'7	...	...	...	...	1'7	20'1	213'1 3'36	6'7	3'4	8'4	8'4
Beawar . . .	23 {	...	...	...	...	43'5	...	...	...	...	...	43'5	...	43'5	...	...	...	...	...	...	130'4	...	...	...	...
Nasirabad . . .	566 {	...	...	...	...	535'3 5'30	...	...	...	...	1'8 1'77	5'3	24'7 1'77	14'1	30'0	...	...	14'1	35'3 1'77	10'6	1,086'6 10'60	38'9	...	1'	8'1
Ajmir . . .	542 {	...	...	...	...	107'0	...	...	...	...	3'7 3'69	22'1 5'54	35'1	1'8	9'2	...	1'8	...	1'8	11'1	444'6 9'22	14'8	3'7	...	7'4
Jaipur . . .	40 {	...	...	...	...	350'0	...	...	...	...	...	25'0	...	...	...	...	...	...	...	...	450'0	25'0	...	...	...
Agra . . .	731 {	...	...	...	...	151'8 1'37	...	...	...	2'7 1'37	...	10'2 5'47	5'5	26'0	2'7	...	...	...	4'1	16'4	377'6 8'21	17'8	2'7	6'8	6'8

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION RATE.										2. DEATH RATE.													
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Malta Fever.	Pyrexia of uncertain origin.	Plague.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Venereal Diseases.	ALL CAUSES.	CONSTANTLY SICK RATE.	Syphilis.	Soft Chancre.	Gonorrhœa.
Gwalior . . .	29 {	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	34'5 {	...	...	...	...
Jhansi . . .	2,556 {	...	...	8'39	3'51'56	515'639	4'...	7'0...	...	4'...	1'6...	7'0'39	9'0...	53'639	9'0...	...	...	...	8'2...	24'6...	986'34'69	22'3	8'6...	9'4...	6'7...
Nowgong . . .	728 {	11'0...	...	...	1'41'37	215'7...	...	5'5...	...	5'5...	4'12'73	15'1...	8'2...	19'2...	5'5...	...	...	...	46'7...	19'2...	627'75'49	23'4	6'9...	1'4...	11'0...
Goona . . .	405 {	...	...	...	2'52'47	84'0...	...	4'9...	...	4'9...	...	4'9...	12'3...	9'9...	7'4...	...	...	...	2'5...	2'5...	335'84'94	12'3	...	...	2'5...
Agar . . .	364 {	...	...	...	...	68'7...	...	...	...	...	...	2'7...	35'7...	5'52'75	...	...	2'7...	...	16'5...	2'7...	302'22'75	11'0	...	...	2'7...
Sehore . . .	666 {	...	...	...	1'5...	223'7...	3'0...	...	...	...	4'5...	16'5...	15'0...	9'0...	6'0...	...	...	...	19'5...	24'0...	674'21'50	24'0	3'0...	10'5...	10'5...
Indore . . .	124 {	...	...	...	...	145'3...	...	...	...	...	8'0...	32'4...	64'6...	...	...	...	...	...	16'0...	16'0...	685'5...	24'2	8'0...	...	8'0...
Mhow . . .	1,340 {	...	75	...	...	268'7...	...	...	...	...	1'5...	4'5...	14'9...	8'2...	8'21'49	...	7'...	1'5...	6'0...	11'9...	636'62'99	20'9	5'2...	...	6'7...
GROUP VIII.— SOUTH-EASTERN RAJPUTANA, CENTRAL INDIA, AND GUJARAT .	12,114 {	1'0...	0'08	5'08	1'2'58	288'8'58	2'...	2'6...	...	1'3'17	3'0'41	12'31'49	18'2'17	23'9'25	6'9'17	...	5'...	2'5...	10'6'08	17'0...	686'95'20	21'3	5'6...	4'9...	6'5...
A																									
Saugor . . .	1,166 {	...	0'9...	...	3'41'72	364'5...	...	...	...	9'...	1'7...	6'9...	5'1...	18'9...	9'...	9'...	1'7...	9'...	4'3...	6'0...	661'21'72	19'7	3'4...	...	2'6...
Sutna . . .	33 {	...	...	30'3...	...	363'6...	...	...	...	...	30'3...	60'6...	60'6...	30'3...	...	...	...	...	30'3...	...	787'9...	30'3	30'3...	...	...
Jubbulpore . . .	1,865 {	10'7...	...	5'...	2'1...	219'2...	...	15'5...	...	...	5'...	7'5'54	10'7'54	61'7...	5'4...	...	5'...	...	8'0...	16'6...	656'33'22	20'4	5'9...	3'2...	7'5...
Kampti . . .	637 {	...	...	6'31'57	1'61'57	161'7...	...	26'7...	...	1'61'57	3'1...	4'7...	6'3...	1'...	1'6...	...	1'6...	...	7'8...	11'0...	538'54'71	22'0	4'7...	3'1...	...
Sitabaldi . . .	36 {	...	...	...	...	83'3...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	194'4...	...	...	...	...
B																									
Aurangabad . . .	1,514 {	...	...	22'5...	...	138'7...	...	19'2...	...	3'3...	4'6'66	2'6...	8'6...	9'2'66	4'6...	7'...	...	...	2'6...	16'5...	492'11'98	19'8	4'0...	5'3...	7'3...
Ahmednagar . . .	1,092 {	...	...	...	1'8...	57'7...	...	19'2...	...	1'8...	9'...	11'0'9	26'6'92	13'7...	...	...	...	2'7...	1'8...	22'9...	371'81'83	17'4	10'1...	6'4...	6'4...
Bolarum . . .	1,760 {	...	6'57	...	3'4'57	78'4...	...	29'5'57	...	...	3'41'14	12'5...	29'5...	10'2...	...	...	...	...	8'0...	9'1...	369'97'39	15'9	4'0...	...	5'1...
Secunderabad . . .	3,440 {	23'2...	9'33'78	9'...	3'2'29	39'8'58	...	13'4...	...	35'5'8	2'5'...	6'11'16	9'6...	68'6'29	6'4...	3'...	6'...	3'...	10'8'58	22'7...	429'19'00	17'4	6'4...	4'4...	11'9...
Belgaum . . .	1,960 {	...	...	5'...	5'51	74'5'51	...	1'0...	5'...	5'...	1'0'...	9'21'02	19'4'51	12'2'51	1'5...	...	...	5'...	4'6...	49'5...	421'45'10	22'4	6'6...	28'6...	14'3...
Satara . . .	113 {	...	...	17'7...	...	53'1...	...	...	...	...	...	...	8'8...	17'7...	...	...	...	8'8...	...	44'2...	362'8...	17'7	26'5...	...	17'7...

NATIVE TROOPS, 1908.

TABLE XXVIII—continued.

RATIOS of STATIONS, GROUPS, and ARMIES.

For actuals see Table XXIX.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION RATE.														2. DEATH RATE.									
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Malta Fever.	Pyrexia of uncertain origin.	Plague.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Venereal Diseases.	ALL CAUSES.	CONSTANTLY SICK RATE.	Syphilis.	Soft Chancre.	Gonorrhoea.
Poona . . .	2,322 {	...	...	3'0	5'2	23'3	...	45'7	6'5	1'3	1'7	5'6	14'2	17'7	3'0	4	2'2	4	6'5	36'6	420'3	20'2	17'2	6'0	13'
Kirkee . . .	1,693 {	37'2	...	...	1'2	105'7	...	63'2	1'2	1'2	...	9'4	52'6	10'0	14'8	...	1'2	1'2	1'2	24'2	629'1	19'5	6'5	6'5	11'
		...	...	...	5'9	...	...	...	5'9	5'9	...	1'77	...	5'9	...	...	...	...	...	...	7'09	...	...	...	...
GROUP IX.— DECCAN. }	17,631 {	9'2	1'9	3'0	2'4	106'9	...	23'1	1'0	1'5	1'4	6'6	16'4	30'7	5'4	2	7	6	6'1	23'7	485'3	19'2	7'5	6'7	9'
		...	7'9	0'6	4'5	17	...	0'6	3'4	2'3	1'1	7'9	17	2'3	...	...	...	...	1'1	...	5'22	...	...	...	...
Bombay . . .	648 {	...	...	1'5	4'6	509'3	...	3'1	3'1	6'2	6'2	12'3	35'8	41'7	23'1	...	1'5	7'7	4'6	71'0	1,120'4	43'2	12'3	27'8	30'
		...	...	...	4'63	4'63	...	...	1'54	1'54	...	3'09	1'54	3'09	...	...	...	...	...	...	21'60	...	...	...	...
Santa Cruz . . .	652 {	4'6	...	1'5	...	257'0	...	3'1	...	...	1'5	3'1	46'0	128'8	19'9	...	3'1	9'2	3'1	26'1	966'3	27'6	12'3	10'7	3'
		...	...	...	...	1'53	...	...	...	...	...	1'53	...	...	...	...	...	...	...	...	3'07	...	...	...	...
Cannanore . . .	351 {	...	...	...	2'8	37'0	...	51'3	...	8'5	...	...	14'2	19'9	2'8	...	...	...	11'4	71'2	575'5	31'3	11'4	37'0	22'
	
Trivandrum . . .	56 {	...	...	...	...	35'7	...	...	...	...	...	...	...	35'7	...	...	...	...	...	53'6	232'1	17'9	17'9	...	35'
	
GROUP X.— WESTERN COAST. }	1,707 {	1'8	...	1'2	2'3	300'5	...	12'9	1'2	4'1	2'9	5'9	72'1	70'3	17'0	...	1'8	6'4	5'3	53'3	920'3	34'0	12'3	22'3	18'
		...	...	1'76	...	2'34	...	...	5'9	5'9	...	1'76	5'9	1'17	...	...	...	...	...	...	9'37	...	...	...	...
A																									
Bellary . . .	411 {	...	14'5	...	...	19'5	...	24'3	...	...	2'4	97	4'9	19'5	...	...	2'4	...	12'2	17'0	379'6	21'9	2'4	2'4	12'
		...	12'17	...	...	...	...	...	...	...	...	7'30	...	...	...	...	...	...	...	...	19'46	...	...	...	...
Bangalore . . .	3,229 {	3	...	3	...	214'3	...	18'3	3'1	9	9	9'6	18'0	40'6	7'1	9	3	...	11'5	29'1	645'7	22'3	12'1	9'0	8'
		...	...	...	...	...	...	3'1	1'86	3'1	3'1	1'24	1'24	1'24	...	...	...	...	3'1	...	8'67	...	...	...	...
B																									
Trichinopoly . . .	369 {	...	10'8	...	...	27'1	...	...	...	...	10'8	...	5'4	13'6	13'6	...	...	...	5'4	21'7	241'2	8'1	2'7	...	19'
		...	8'13	...	...	...	...	...	...	...	2'71	...	...	...	...	...	...	...	...	...	13'55	...	...	...	...
St. Thomas' Mount. }	496 {	...	...	...	2'0	8'1	...	26'2	...	...	2'0	2'0	...	14'1	6'0	...	...	...	6'0	14'1	298'4	12'1	10'1	2'0	2'0
		...	...	...	...	...	...	...	...	...	2'02	...	...	...	...	...	...	...	...	...	2'02	...	...	...	...
Madras . . .	118 {	...	8'5	...	8'5	42'4	...	...	...	...	...	...	110'2	93'2	8'5	...	...	...	8'5	33'9	966'1	50'8	8'5	...	25'
		...	8'47	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8'47	...	...	...	...
GROUP XI.— SOUTHERN INDIA. }	4,623 {	2	2'4	2	4	155'5	...	17'7	2'2	6	1'9	7'8	17'1	35'0	6'9	6	4	...	10'4	26'0	560'7	20'8	10'2	6'7	9'
		...	1'95	...	...	...	...	2'2	1'30	2'2	6'5	1'51	8'7	8'7	...	...	...	...	2'2	...	9'30	...	...	...	...
Maymyo . . .	841 {	...	...	...	7'1	176'0	...	11'9	...	8'3	2'4	5'9	28'5	38'0	16'6	...	...	...	13'1	29'7	719'4	32'1	4'8	16'8	7'
		...	...	...	...	...	...	1'19	...	...	2'38	...	...	...	...	...	...	...	1'19	...	4'76	...	...	...	...
Kohima . . .	176 {	...	...	...	5'7	204'5	...	...	...	...	...	...	45'5	51'1	11'4	...	...	...	56'8	56'8	556'8	28'4	39'8	5'7	11'
		...	...	...	5'68	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5'68	...	...	...	...
Shillong . . .	759 {	19'8	1'3	...	...	238'5	...	1'3	...	...	4'0	2'6	11'9	27'7	5'3	...	...	1'3	7'9	26'4	798'4	26'4	7'9	2'6	15'
		...	...	...	...	1'32	...	...	...	...	1'32	1'32	...	1'32	...	...	...	...	...	...	9'22	...	...	...	...
Gangtok . . .	127 {	...	7'9	...	...	126'0	...	23'6	...	...	...	...	102'4	23'6	...	...	...	...	...	15'7	692'9	23'6	...	...	15'
	
Chumbi (including Pharijong) (Libet). }	25 {	...	...	...	...	40'0	...	...	...	...	...	...	40'0	...	...	...	...	...	...	...	160'0	3'3	...	...	...
	
Gyantse . . .	73 {	...	...	...	...	109'6	...	...	...	27'4	...	54'8	68'5	41'1	...	...	...	...	...	41'1	479'5	27'4	...	113'7	27'
		...	...	...	...	...	...	...	...	...	...	27'40	...	...	...	...	...	...	...	...	41'10	...	...	...	...
Almora . . .	630 {	...	...	...	11'1	207'9	...	47'6	...	...	1'6	9'5	3'2	23'8	6'3	...	...	...	20'6	60'3	736'5	23'8	6'3	25'4	28'
		...	...	...	1'59	...	...	...	...	...	1'59	...	...	...	...	...	...	...	...	...	3'17	...	...	...	...

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION RATE.												2. DEATH RATE.											
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Malta Fever.	Pyrexia of uncertain origin.	Plague.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK RATE.	Syphilis.	Soft Chancre.	Gonorrhoea.
Naini Tal .	119 {	...	...	...	...	142'8	...	...	...	...	16'8	16'8	16'8	25'2	25'2	...	...	...	8'4	16'8	462'2	16'8	...	8'4	8'4
Lansdowne .	2 859 {	3	1'4	...	3'5	135'4	...	1'0	...	3	3'8	17'1	4'2	33'6	10'8	...	3	...	5'9	5'2	406'1	17'5	3	3	4'5
		...	70	...	35	1'40	...	...	...	...	2'10	35	1'05	...	...	35	...	...	...	...	9'44	...	...	...	...
Simla .	356 {	...	...	...	...	868'0	...	2'8	...	5'6	5'6	2'8	44'9	95'5	...	...	2'8	...	16'9	36'5	1278'1	30'9	14'0	8'4	14'0
		...	...	...	...	5'62	...	...	...	...	...	...	...	...	...	...	...	...	2'81	...	8'43	...	...	...	...
Jutogh .	202 {	...	...	...	...	113'9	...	...	...	...	...	9'9	9'9	44'6	5'0	...	...	...	9'9	9'9	351'5	19'8	9'9	...	...
		...	...	...	...	...	...	...	...	...	...	4'95	...	...	...	...	...	...	...	...	9'90	...	...	...	...
Dharmasala .	1,453 {	3'4	...	...	2'1	95'7	...	...	...	...	7'6	7'6	8'3	9'6	7'6	...	1'4	...	6'2	11'0	311'8	11'0	3'4	1'4	6'2
		...	...	...	1'38	...	...	...	...	69	2'75	3'44	...	...	...	...	...	...	...	...	9'64	...	...	...	...
Bakloh .	1,413 {	33'3	...	...	...	168'4	...	...	...	7	4'2	1'4	9'2	14'9	7'1	...	...	7	5'7	6'4	429'6	15'6	2'8	7	2'8
		2'12	...	...	...	...	...	...	...	71	71	1'42	7'1	...	...	...	...	...	...	...	6'37	...	...	...	...
Khairagali .	57 {	...	...	...	...	315'8	...	87'7	...	...	...	35'1	35'1	...	...	...	17'5	...	...	...	666'7	35'1	...	...	...
	
Baragali .	61 {	...	...	...	...	65'6	...	131'1	...	...	...	...	...	32'8	32'8	...	...	...	32'8	16'4	852'5	16'4	16'4	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	16'39	...	...	...	...
Kalabagh .	62 {	...	...	...	...	112'9	...	...	...	...	...	...	16'1	32'3	16'1	...	...	...	48'4	...	677'4	32'3	...	...	...
	
Chitral .	178 {	...	...	...	...	16'9	5'6	...	...	...	...	28'1	11'2	5'6	...	...	11'2	5'6	16'9	...	213'5	11'2	...	...	...
		...	...	...	...	...	...	...	...	...	...	5'62	...	...	...	...	...	...	...	...	5'62	...	...	...	...
Kila Drosh .	681 {	...	...	...	1'5	214'4	1'5	4'4	...	4'4	...	14'7	16'2	14'7	11'7	...	4'4	...	11'7	5'9	484'6	29'4	4'4	...	1'5
		...	...	...	...	14'68	...	1'47	...	2'94	...	1'47	2'94	...	...	...	...	...	...	...	27'90	...	...	...	...
Malakand .	764 {	...	...	...	...	231'4	...	1'3	...	2'6	...	30'1	40'6	39'3	1'3	...	1'3	6'	15'7	5'2	791'9	28'8	2'6	...	2'6
		...	...	...	...	...	...	...	...	1'31	...	3'93	1'31	...	...	...	...	...	...	...	7'85	...	...	...	...
Dargai .	320 {	...	...	...	3'1	1159'4	...	3'1	3'1	...	6'3	34'4	21'9	31'3	...	...	...	...	6'3	6'3	1668'8	37'5	6'3	...	...
		...	...	...	3'13	...	...	...	...	...	...	6'25	...	...	...	...	...	...	...	...	12'50	...	...	...	...
Chakdara .	467 {	...	...	2'1	2'1	1546'0	...	2'1	...	2'1	12'8	15'0	19'3	8'6	...	...	...	...	8'6	8'6	1833'0	36'4	...	2'1	6'4
		...	...	...	2'14	...	...	...	...	...	...	2'14	...	...	...	...	...	...	...	...	4'28	...	...	...	...
Abbottabad .	3,340 {	...	10'8	...	12'0	329'9	...	53'0	...	1'2	2'7	21'0	39'8	27'8	12'3	...	1'2	3	13'2	17'4	839'2	39'2	1'2	7'8	8'4
		...	8'68	...	2'99	1'20	...	6'0	...	...	90	3'29	3'30	...	...	...	...	...	...	...	18'56	...	...	...	...
Cherat .	26 {	...	...	...	...	76'9	...	...	...	...	38'5	38'5	...	115'4	...	...	...	...	38'5	...	423'1	...	...	...	...
	
Fort Lockhart .	154 {	...	...	...	...	564'9	6'5	...	...	...	...	26'0	32'5	19'5	6'5	...	...	...	26'0	13'0	928'6	19'5	...	6'5	6'5
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6'49	...	...	...	...
Hangu .	454 {	...	...	...	...	85'9	...	...	...	...	8'8	8'8	15'4	26'4	2'2	...	...	...	2'2	19'8	458'1	19'8	13'2	6'6	...
	
Mir Ali Khel .	96 {	...	...	...	...	875'0	...	...	...	...	...	20'8	41'7	125'0	10'4	...	10'4	...	20'8	...	1,375'0	31'2	...	...	...
		...	...	...	...	...	...	...	...	...	...	10'42	...	10'42	...	...	...	...	...	...	20'83	...	...	...	...
Fort Sandeman .	472 {	...	2'1	...	2'1	275'4	...	...	...	...	8'5	44'5	27'5	99'6	2'1	...	6'4	4'2	72'0	25'4	750'0	33'9	16'9	...	8'5
		...	2'12	...	2'12	...	...	...	...	...	...	8'47	...	2'12	...	...	...	...	...	...	16'95	...	...	...	...
Hindu Bagh .	30 {	...	...	...	...	566'7	...	...	...	...	...	...	...	133'3	...	...	...	...	3'7	...	866'8	33'3	...	...	...
	
Musa Khel .	30 {	...	...	...	...	433'0	...	...	...	...	...	...	...	200'2	...	...	...	...	...	...	733'3	33'3	...	...	...
	
Kila Saifulla .	30 {	...	...	...	...	933'3	...	...	...	...	...	...	...	365'7	...	...	...	...	...	...	1,400'0	33'3	...	...	...
	
Murgha .	49 {	...	...	...	...	714'3	...	...	...	...	...	20'4	...	142'9	...	...	...	...	40'8	20'4	1,020'4	40'8	...	...	20'4
	

NATIVE TROOPS, 1908.

TABLE XXVIII—continued.

RATIOS of STATIONS, GROUPS, and ARMIES.

For actuals see Table XXIX.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSION RATE.														2. DEATH RATE.									
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Malta Fever.	Pyrexia of uncertain origin.	Plague.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK RATE.	Syphilis.	Soft Chancre.	Gonorrhoea.
Loralai . . .	1,017 {	23'6	...	...	...	237'0	...	...	...	...	...	31'5	37'4	9'8	29'5	...	1'0	2'0	54'1	3'9	659'8	15'7	...	...	3'9
Gumbaz . . .	32 {	...	...	...	...	531'3	...	...	...	...	...	31'2	...	93'8	...	...	...	...	...	...	781'2	31'2	...	...	...
Quetta . . .	4,862 {	4'3	...	6	3'1	106'7	...	35'8	4	2'5	6'8	16'0	36'8	43'0	19'8	...	1'0	3'5	16'9	12'1	524'1	19'3	4'9	1'2	6'0
Robat . . .	202 {	...	...	...	...	74'3	...	...	...	...	...	...	39'6	79'2	39'6	...	...	79'2	29'7	...	589'1	19'8	...	...	...
Pishin . . .	31 {	...	32'3	...	...	32'3	...	...	...	...	...	...	32'3	...	...	...	...	...	...	...	56'8	...	...	...	...
Shelabagh . .	81 {	...	...	...	...	49'4	...	37'0	...	...	...	...	61'7	37'0	...	...	...	12'3	...	12'3	543'2	12'3	...	...	12'3
Chaman . . .	641 {	...	...	1'6	1'6	9'4	...	32'8	...	1'6	...	4'7	7'8	17'2	1'6	...	...	1'6	3'1	1'6	181'0	9'4	1'6	...	...
Mount Abu . .	80 {	...	...	...	...	1037'5	...	...	...	...	...	...	50'0	37'5	...	...	...	...	...	...	1387'5	37'5	...	...	...
Ootacamund . .	177 {	...	...	...	...	...	...	5'6	...	...	...	22'6	...	5'6	...	...	...	...	...	16'9	135'6	11'3	16'9	...	...
Camp Lovedale .	38 {	...	...	...	...	...	...	...	...	...	...	52'6	...	...	...	...	...	...	...	26'3	289'5	26'3	...	...	26'3
GROUP XII.— HILL STA- TIONS.	23,465 {	4'8	1'8	2	3'7	236'3	1	18'9	1	1'5	3'9	15'5	24'8	33'2	11'8	...	1'1	2'0	15'0	13'7	624'8	23'4	3'9	3'4	5'3
Marching India .	8,640 {	6	1'4	1	2	126'2	...	2'8	...	6	1'5	8'9	9'7	27'3	6'7	...	3	2	4'1	5'0	297'5	5'7	9	1'2	2'9
Bazar Valley Field Force.	333 {	...	...	3'0	...	21'0	...	...	...	...	...	33'0	6'0	15'0	...	...	...	...	...	6'0	102'2	3'0	3'0	3'0	...
Mohmand Field Force.	1,185 {	8	10'1	...	...	92'0	...	...	...	...	...	14'3	6'8	54'0	24'5	...	...	...	...	2'5	512'2	16'9	8	8	8
EXTRA INDIA.																									
(a) In the Indian Command.																									
Chabbar . . .	52 {	...	...	...	...	1019'2	...	...	...	...	...	38'5	...	269'2	76'9	...	...	...	57'7	...	1615'4	57'7	...	...	...
Jask . . .	65 {	...	...	...	...	76'9	...	...	...	...	...	...	15'4	276'9	...	...	...	107'7	...	...	615'4	30'8	...	...	...
Muscat . . .	20 {	...	...	...	...	550'0	...	...	...	50'0	100'0	50'0	...	50'0	...	...	...	...	...	...	900'0	50'0	...	...	...
Bushire . . .	67 {	...	...	...	...	...	...	...	...	...	...	...	29'9	...	...	...	...	...	...	...	104'5	...	...	...	...
Baghdad . . .	36 {	...	...	...	...	...	...	...	...	...	...	55'6	...	...	...	...	...	...	...	...	55'6	...	...	...	...
Aden . . .	679 {	...	...	...	...	35'3	...	128'1	...	5'9	1'5	5'9	13'3	39'8	42'7	...	...	10'3	36'8	2'9	570'0	25'0	...	1'5	1'5

STATIONS AND ARMIES.	Average annual strength.	1. ADMISSION RATE.												2. DEATH RATE.											
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Malta Fever.	Pyrexia of uncertain origin.	Plague.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Venereal Diseases.	ALL CAUSES.	CONSTANTLY SICK RATE.	Syphilis.	Soft Chancre.	Gonorrhoea.
Khormaksar .	86 {	...	...	...	...	116'3	...	34'9	...	...	...	...	69'8	34'9	...	...	...	...	...	11'6	720'9	23'3	...	...	11'6
Perim . .	36 {	...	...	...	...	55'6	...	...	...	...	...	...	916'7 27'78	27'8	...	...	...	...	138'9	...	1,305'6 27'78	27'8	...	...	...
(b) Not in the Indian Command:—																									
Colombo . .	762 {	...	...	...	...	77'4	...	...	...	...	1'3	1'3	84'0	94'5	24'9	...	1'3	2'6	6'6	19'7	568'2 1'31	18'4	10'5	1'3	7'9
Singapore . .	778 {	...	...	...	2'6	81'0	...	10'3	...	...	...	2'6	21'9	126'0	6'4	...	1'3	1'3	36'0 1'29	11'6	658'1 2'57	36'0	6'4	1'3	3'9
Tien-tsin .	650 {	...	...	...	...	1'5	...	20'0	...	...	...	9'2	10'8	36'9	15'4	1'5	...	...	1'5	15'4	510'8	40'0	6'2	1'5	7'7
Lutai . .	61 {	65'6	...	...	...	...	...	16'4	...	16'4	...	...	16'4	...	16'4	...	...	...	...	16'4	213'1	16'4	16'4	...	...
Shan-hai Kwan.	114 {	26'3	...	...	...	8'8	...	8'8	...	...	52'6 8'77	...	17'5	...	...	...	...	...	...	35'1	245'6 17'54	43'9	17'5	17'5	...
Tongshan .	38 {	...	...	...	...	...	...	...	...	...	...	...	26'3	...	...	...	...	...	...	26'3	421'1	26'3	...	26'3	...
Hong Kong }	1,451 {	55'8	...	...	7	82'0	...	32'4	...	...	7	7'6	102'7	28'9	6'9	...	7	...	5'5	20'0	782'2 4'82	35'8	7'6	2'8	9'6
ARMY OF INDIA.	* 126,975 {	3'8 '02	1'4 '91	8 '02	2'8 '57	266'2 '58	2	16'2 '09	3 '11	1'2 '17	3'0 '42	12'8 2'20	20'2 '29	39'5 '22	8'8 '06	1 '02	7 '02	1'5	12'1 '13	15'2 '02	674'4 7'41	22'8	4'9 '02	4'3	6'0
INDIA . .	* 121,603 {	3'2 '02	1'3 '91	8 '02	2'9 '60	275'0 '60	2	16'3 '09	3 '12	1'2 '17	3'0 43	12'9 2'25	18'9 '30	38'9 '23	8'6 '07	1 '02	7 '01	1'5	12'3 '12	15'3 '02	678'4 7'28	22'6	4'9 '02	4'4	6'1
NORTHERN ARMY	62,141 {	2'6 '05	1'6 1'24	6 '02	4'0 '76	368'2 '84	3	15'3 '13	0	9 '21	3'6 '50	15'8 2'96	17'2 '34	43'0 '13	7'9 '02	1 '03	8	1'2	13'7 '05	12'8 '03	796'6 8'69	26'0	4'1 '03	3'5	5'2
SOUTHERN „	50,822 {	4'4 ...	9 '55	1'3 '04	1'8 '51	186'3 '39	1	19'9 '06	6 '28	1'6 '16	2'6 '31	10'1 1'71	22'6 '30	35'8 '39	9'9 '12	1 ...	7 '02	2'2	12'0 '20	20'1	598'7 6'30	21'4	6'5	5'9	7'7

* See foot note at the end of Table XXIX.

NATIVE TROOPS, 1908.

TABLE XXIX.

ACTUALS of STATIONS, GROUPS, and ARMIES, on which the ratios in Tables XXVI—XXVIII have been calculated.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSIONS.														2. DEATHS.										
		Influenza.	Cholera.	Small-pox.	Enteric fever.	Malaria	Malta Fever.	Pyrexia of uncertain origin.	Plague.	Circulatory Diseases	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Syphilis.	Soft Chancre.	Gonorrhœa.	
Port Blair	279 {	...	...	...	...	77	...	9	...	...	1	...	8	25 1	3	...	1	...	7	8	198 1	5	2	3	3
Rangoon	1,007 {	...	...	...	...	91	...	136	...	...	1	3	28	82	1	...	...	...	19	9	615 2	19	...	6	3
GROUP I.—BURMA COAST AND BAY ISLANDS.	1,286 {	...	...	...	...	168	...	145	...	...	2	3	36	107 1	4	...	1	...	26	17	813 3	24	2	9	6
Meiktila	606 {	...	...	2	...	89	...	4	...	...	1	5	6	19	5	...	...	...	7	12	328	18	6	2	4
Fort Dufferin . . .	1,353 {	...	...	2	...	263 2	...	6	...	4 1	2	7 3	40	15	21	...	...	...	10	18	820 6	32	3	6	9
Bhamo	864 {	...	...	2	...	298 2	...	...	1 1	2	...	6 4	12	30	25	...	...	...	23	8	718 8	27	5	2	1
GROUP II.—BURMA INLAND	2,823 {	...	...	6	...	650 4	...	10	1 1	6 1	3	18 7	58	64	51	...	...	...	40	38	1,866 14	77	14	10	14
Manipur	551 {	...	2	...	...	191 1	...	9	...	...	...	7 2	12	28	18	...	...	...	11	15	460 5	13	9	1	5
Sadiya	50 {	...	...	...	...	24	...	...	...	...	...	...	3	...	...	...	...	...	...	...	43	1	...	...	...
Dibrugarh	322 {	...	...	...	...	197	...	...	...	1	...	1	9	3	...	...	...	...	1	7	311	7	3	2	2
GROUP III.—ASSAM .	923 {	...	2	...	...	412 1	...	9	...	1	...	8 2	24	31	18	...	...	...	12	22	814 5	21	12	3	7
Fort William . . .	650 {	...	...	1	...	84	...	46 1	...	2	1	9	17 1	37	1	...	3	9	31	23	446 3	18	6	14	3
Alipore	741 {	1	...	1	...	165 1	...	4	...	2	7 2	8 3	35	35	2	...	1	2	20	10	400 6	18	2	2	6	
Barrackpore . . .	688 {	...	...	...	...	252	...	1	...	2	2 1	3 2	10 2	99	2	...	...	6	12	3	648 6	21	1	1	1
Buxa	140 {	...	...	...	...	32	...	6	...	...	2	2	4	9	...	...	1	...	...	1	127	5	1	...	...
GROUP IV.—BENGAL AND ORISSA.	2,219 {	1	...	2	...	533 1	...	57 1	...	6	12 4	22 5	66 3	180	5	...	5	17	6	3	1,021 15	62	10	17	10	

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSIONS.										2. DEATHS.															
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Malta Fever.	Pyrexia of uncertain origin.	Plague.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Syphilis.	Soft Chancre.	Gonorrhœa.		
B																											
Dinapore . . .	620 {	...	...	2	...	205	...	...	...	1	1	15	7	14	...	...	...	...	4	4	389	13	1	1	2
		...	...	...	...	...	...	...	...	...	1	4	...	...	...	...	...	...	...	...	6		...	...	...
Benares . . .	484 {	...	...	...	...	71	...	...	...	2	4	3	13	25	3	...	...	...	3	6	243	10	1	2	3
			
Allahabad . . .	1,096 {	...	1	2	...	343	...	9	...	3	2	5	5	116	4	...	1	...	27	18	877	25	6	6	6		
		...	...	...	...	1	...	...	...	...	...	3	...	...	...	...	...	...	1	...	7		...	1	...
Fyzabad . . .	1,106 {	...	1	...	1	250	...	...	...	...	...	14	12	38	3	...	1	2	13	20	541	19	13	3	4
		...	...	...	...	1	...	...	...	...	...	3	...	...	...	...	...	...	...	...	5		...	...	...
Lucknow . . .	1,692 {	...	...	3	...	259	...	34	...	1	1	31	18	105	1	...	2	2	28	732	24	9	4	15	
		...	...	...	...	1	...	...	...	...	...	8	...	...	...	...	...	...	...	...		13	...	...	...
Cawnpore . . .	816 {	1	14	1	...	299	...	2	...	24	1	14	11	32	...	...	...	1	19	12	681	25	2	3	7
		...	8	...	...	2	...	...	...	1	...	1	...	...	...	...	...	...	...	...	14		...	...	...
Fatehgarh . . .	158 {	...	...	...	...	79	...	...	...	1	1	1	1	1	2	1	...	...	6	3	142	4	...	1	2
		...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	2		...	...	...
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR.	5,972 {	1	16	8	1	1,506	...	45	...	8	33	83	67	331	13	1	2	5	74	91	3,605	120	32	20	3		
		...	8	...	...	5	...	...	...	...	2	20	...	...	...	...	...	...	...	1	47		...	1	...
A																											
Bareilly . . .	1,088 {	1	...	1	...	351	...	4	...	...	2	8	7	66	3	...	2	...	7	12	654	19	...	6	6
		...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	2		...	...	...
Rurki . . .	756 {	...	...	2	...	87	...	39	...	...	1	7	3	10	...	...	...	...	18	...	283	9	...	...	...
		...	...	1	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	3		...	...	...
Dehra Dun . . .	2,916 {	11	2	1	71	1,809	...	124	...	1	11	5	52	141	11	...	1	3	9	104	3,151	129	37	43	24		
		...	1	...	13	...	...	...	...	1	3	2	...	...	...	...	...	...	...	...	27		...	...	...
Meerut . . .	1,613 {	...	...	1	...	621	...	16	...	...	8	6	13	78	11	...	3	1	15	47	1,374	44	13	18	16
		...	...	...	...	1	...	...	...	1	1	5	1	...	...	...	...	...	...	...	11		...	...	...
Delhi . . .	1,109 {	...	...	4	...	667	...	...	...	...	2	19	12	30	22	...	...	...	18	14	1,065	24	4	4	6
		...	...	...	...	3	...	...	...	...	...	4	2	...	...	...	...	...	...	...	11		...	...	...
Ambala . . .	1,647 {	...	1	2	3	129	11	10	...	3	4	13	1	74	1	...	1	...	14	18	685	31	8	1	9		
		...	1	...	...	1	...	...	...	1	1	2	...	...	...	...	...	...	...	...	8		...	...	...
B																											
Jullundur . . .	1,661 {	...	...	1	2	595	...	2	...	...	5	25	11	56	5	...	...	2	5	10	1,073	29	...	4	6
		...	...	...	1	2	...	...	...	...	...	4	1	...	...	...	...	...	...	...	10		...	...	...
Ferozepore . . .	1,826 {	17	1	4	9	800	...	11	1	2	4	26	18	87	11	...	5	...	24	25	1,447	40	11	7	7		
		...	1	...	1	...	...	...	...	...	...	7	...	...	...	...	...	...	...	...	11		...	...	...
Lahore Cantonment . . .	1,641 {	...	3	1	1	208	2	73	...	...	3	24	20	77	4	...	1	...	21	5	852	28	1	1	3
		...	2	...	...	5	...	...	...	...	1	7	2	...	...	...	...	...	...	...	17		...	...	...
Amritsar . . .	121 {	...	...	...	...	52	...	...	...	...	1	5	1	10	...	...	...	...	...	2	98	2	...	...	2
		...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	3		...	...	...
Sialkot . . .	1,789 {	1	1	...	12	394	1	26	...	...	...	51	21	66	7	...	...	1	27	17	1,075	38	8	1	8
		...	1	...	3	...	...	...	...	...	...	10	...	...	...	...	...	...	...	...	18		...	...	...
Jhelum . . .	2,929 {	6	2	2	9	1,160	...	3	...	4	14	36	44	85	15	1	1	3	51	26	2,144	62	10	5	11		
		...	2	...	2	...	...	...	...	1	2	8	...	2	1	...	...	...	2	...	23		...	...	...
Rawalpindi . . .	2,242 {	...	6	4	4	249	1	173	1	1	7	26	35	56	11	...	2	...	25	16	1,096	40	5	6	5		
		...	4	...	1	...	...	1	...	...	...	5	...	1	...	...	...	...	...	...	14		...	...	...
Attock . . .	88 {	...	1	...	...	40	...	...	...	...	1	1	1	4	6	...	...	1	1	2	80	2	2	...	...
		...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1		...	...	...
GROUP VI.—UPPER SUB-HIMALAYA.	21,426 {	36	17	23	111	7,162	15	481	2	11	63	302	251	846	107	1	16	11	235	298	15,077	497	99	96	103		
		...	13	1	21	12	...	1	...	5	8	59	8	3	1	...	...	...	2	...	159		...	...	...
A																											
Mardan . . .	823 {	9	1	...	1	188	...	8	...	...	7	31	26	18	2	...	1	...	6	29	480	21	3	3	23
		...	1	...	...	1	...	...	...	...	...	7	1	1	...	...	...	...	...	...	11		...	...	...
Nowshera . . .	3,434 {	30	11	2	8	912	...	29	...	7	19	44	71	191	21	1	2	13	110	21	3,039	131	16	1	4		
		...	10	...	1	1	...	...	...	...	2	9	...	...	...	...	...	...	...	1	29		...	1	...

NATIVE TROOPS, 1908.

TABLE XXIX—continued.

ACTUALS of STATIONS, GROUPS, and ARMIES, on which the ratios in Tables XXVI–XXVIII have been calculated.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSIONS.										2. DEATHS.													
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Malta Fever.	Pyrexia of uncertain origin.	Plague.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Venereal Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Syphilis.	Soft Chancre.	Gonorrhœa.
Peshawar	2,426 {	11 ...	6 7	15 ...	1,570 3	...	...	14 1	...	...	6 ...	55 7	60 ...	142 1	28 ...	...	1 ...	5 ...	39 ...	25 ...	2,736 26	81	10 ...	6 ...	9 ...
Fort Jamrud . . .	86 {	...	...	...	24 ...	...	...	1 ...	...	...	...	...	1 ...	7 ...	2 ...	...	...	...	...	2 ...	57 ...	1	1 ...	...	1 ...
Kohat	2,822 {	1 ...	1 1	15 2	1,391 3	...	...	13 ...	...	3 ...	10 ...	58 9	61 ...	156 ...	41 ...	1 1	5 ...	6 ...	84 ...	15 ...	2,988 19	92	6 ...	1 ...	8 ...
Thal	107 {	...	...	...	119 ...	...	...	...	...	...	...	2 1	3 ...	13 ...	2 ...	...	...	...	3 ...	...	187 1	4	...	...	...
Edwardesabad . .	2,105 {	6 ...	6 4	18 3	994 ...	...	...	11 ...	...	4 ...	4 ...	35 4	44 ...	97 ...	27 ...	...	1 ...	1 ...	24 ...	12 ...	2,545 13	67	5 ...	4 ...	3 ...
Dera Ismail Khan .	2,475 {	1 ...	...	9 2	2,751 1	1 ...	...	32 2	...	1 ...	10 ...	85 17	70 1	136 2	66 ...	...	2 ...	7 ...	27 ...	6 ...	4,656 29	94	3 ...	...	3 ...
Jatta	59 {	...	...	...	53 ...	...	...	...	...	...	...	1 1	5 ...	3 ...	...	...	...	...	1 ...	...	84 1	2	...	...	...
Drazinda	57 {	...	...	...	71 ...	...	...	...	...	...	...	1 ...	...	12 ...	5 ...	...	...	...	1 ...	...	108 ...	2	...	...	...
Fort Zam	58 {	...	...	...	26 ...	...	...	...	...	...	...	...	1 ...	4 ...	...	...	...	...	1 ...	...	56 ...	1	...	...	1 ...
Multan	1,481 {	...	...	1 1	7 1	670 2	1 ...	18 ...	...	...	4 ...	27 7	12 ...	49 ...	11 ...	...	...	1 ...	10 ...	10 ...	1,124 11	30	3 ...	4 ...	3 ...
Jandola	181 {	...	...	...	187 ...	...	...	...	1 1	...	...	1 1	4 ...	37 ...	13 ...	...	...	...	3 ...	...	290 4	3	...	...	...

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSIONS.										2. DEATHS.													
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Malta Fever.	Pyrexia of uncertain origin.	Plague.	Circulatory Diseases.	Tubercle of the lungs	Pneumonia.	Respiratory Diseases	Dysentery.	Diarrhœa.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Syphilis.	Soft Chancre.	Gonorrhœa.
Sibi	70 {	...	...	...	...	16	...	4	...	...	1	3	...	5	...	...	...	1	1	2	58 {	1	1	...	1
C																									
Jacobabad	392 {	...	...	...	1	221	...	...	...	...	4	18	8	25	...	...	...	1	9	14	424 {	14	3	6	5
Hyderabad	602 {	...	2	...	...	195	...	5	...	...	1	9	9	24	11	...	...	4	7	7	354 {	12	1	6	...
Karachi	555 {	...	...	...	1	264	...	4	...	...	3	7	29	27	15	...	1	1	8	11	597 {	18	3	5	3
GROUP VII.—N.-W. FRONTIER, INDUS VALLEY, AND NORTH-WESTERN RAJPUTANA.	17,733 {	58	27	3	75	9,652	2	139	...	16	69	377	404	946	244	2	13	40	333	155	19,783 {	574	55	36	64
		...	25	...	9	12	...	3	...	1	2	69	4	4	...	1	...	...	2	1	157		1	...	...
A																									
Bhuj	225 {	...	...	...	...	38	...	...	...	...	2	...	3	6	...	...	...	...	...	7	100 {	3	4	2	1
Rajkot	239 {	...	...	...	2	59	...	1	...	2	...	...	11	1	...	...	...	6	1	5	135 {	6	2	1	...
Deesa	656 {	...	...	...	...	96	...	1	...	...	5	9	17	3	1	...	...	1	5	4	366 {	13	1	2	1
Ahmedabad	448 {	...	...	...	...	186	...	...	...	2	...	9	10	25	4	...	2	...	3	10	438 {	16	5	5	...
Baroda	637 {	...	...	...	...	447	...	2	...	1	7	13	19	25	9	...	...	13	1	14	747 {	20	7	6	1
B																									
Alirajpore	10 {	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Sirdarpore	58 {	...	...	...	...	4	...	2	...	...	...	1	...	...	...	...	...	...	1	...	28 {	1	...	...	...
Kherwara	107 {	...	...	...	...	1	...	...	...	...	...	10	8	...	...	...	...	...	1	...	53 {	3	...	...	...
Kotra	37 {	...	...	...	...	4	...	...	...	...	...	3	...	1	...	...	...	...	...	...	21 {	1	...	...	...
Udaipur	11 {	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Todgarh	16 {	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3 {	...	...	...	...
Erinpura	571 {	4	...	...	...	78	...	1	...	...	2	9	18	14	...	...	...	...	6	8	404 {	12	3	...	5
Neemuch	389 {	...	...	...	...	18	...	...	...	2	4	4	3	8	1	...	1	...	...	9	134 {	5	3	...	6
Deoli	596 {	...	...	4	...	16	...	...	...	...	...	7	5	4	...	...	...	...	1	12	127 {	4	2	5	5
Beawar	23 {	...	...	...	...	1	...	...	...	...	...	1	...	1	...	...	...	...	...	...	3 {	...	...	...	...
Nasirabad	566 {	...	...	...	...	303	...	...	...	...	1	3	14	8	17	...	...	8	20	6	615 {	22	...	1	5
Ajmir	542 {	...	...	...	...	58	...	...	...	...	2	12	19	1	5	...	1	...	1	6	241 {	8	2	...	4

NATIVE TROOPS, 1908.

TABLE XXIX—continued.

ACTUALS of STATIONS, GROUPS, and ARMIES, on which the ratios in Tables XXVI—XXVIII have been calculated.

STATIONS AND GROUPS.	Average annual strength	1. ADMISSIONS.										2. DEATHS.													
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Malta Fever.	Pyrexia of uncertain origin.	Plague.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Syphilis.	Soft Chancre.	Gonorrhœa.
Jaipur	40 {	...	...	...	...	14	...	...	...	...	...	1	...	...	...	...	...	...	...	...	18	1	...	...	...
Agra	731 {	...	...	...	...	111	...	...	...	2	...	14	4	19	2	...	...	...	2	12	276	13	2	5	5
Gwalior	29 {	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...
Jhansi	2,556 {	...	2	9	1,318	1	18	...	1	4	18	23	137	23	...	...	...	21	63	2,521	57	22	24	17	
Nowgong	728 {	8	...	1	157	...	4	...	4	3	11	6	14	4	...	...	...	34	14	457	17	5	1	8	
Goona	405 {	...	...	1	34	...	2	...	2	...	2	5	4	3	...	...	...	1	1	136	5	...	...	1	
Agar	364 {	...	...	...	25	...	...	...	...	...	1	13	2	...	1	...	...	6	1	110	4	...	...	1	
Sehore	666 {	...	...	1	149	2	...	...	...	3	11	10	6	4	...	...	...	13	16	449	16	2	7	7	
Indore	124 {	...	...	...	18	...	...	...	...	1	4	8	...	...	...	...	...	2	2	85	3	1	...	1	
Mhow	1,340 {	...	1	...	360	...	...	...	...	2	6	20	11	11	...	1	2	8	16	853	28	7	...	9	
GROUP VIII.—SOUTH-EASTERN RAJPUTANA, CENTRAL INDIA, AND GUJARAT.	12,114 {	12	...	6	14	3,498	3	31	...	16	36	149	220	290	84	...	6	30	128	206	8,321	258	68	59	79
A																									
Saugor	1,166 {	...	1	...	4	425	...	...	...	1	2	8	6	22	1	1	2	1	5	7	771	23	4	...	3
Sutna	33 {	...	...	1	...	12	...	...	...	...	...	1	2	2	1	...	...	...	1	26	1	1	...	...
Jubbulpore	1,865 {	20	...	1	4	409	...	29	...	...	1	14	20	115	10	...	1	...	15	31	1,224	38	11	6	14
Kampti	637 {	...	...	4	1	103	...	17	...	1	2	3	4	1	1	...	1	...	5	7	343	14	3	2	2
Sitabaldi	36 {	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	7	...	...	...	...
B																									
Aurangabad	1,514 {	...	...	34	...	210	...	29	...	5	7	4	15	14	7	1	...	...	4	25	745	30	6	8	11
Ahmednagar	1,092 {	...	...	...	2	63	...	21	...	2	1	12	29	15	...	...	...	3	2	25	406	19	11	7	7
Bolarum	1,760 {	...	1	...	6	138	...	51	...	...	...	6	22	52	18	...	...	...	14	16	651	28	7	...	9
Secunderabad	3,440 {	80	32	3	11	137	...	46	...	12	5	21	33	236	22	1	2	1	37	78	1,476	60	22	15	41

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSIONS.										2. DEATHS.												
		Influenza.	Cholera.	Small-pox. Enteric Fever.	Malaria.	Malta Fever.	Pyrexia of uncer- tain origin.	Plague.	Circulatory Diseases. Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debi- lity.	Venereal Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Syphilis.	Soft Chancre.	Gonorrhœa.	
Belgaum . . .	1,960 {	...	...	1 1	146	...	2	1	1	2	18	38	24	3	...	1	9	97	826	44	13	56	28
Satara . . .	113 {	...	...	2	6	...	...	...	...	...	...	1	2	...	...	1	...	5	41	2	3	...	2
Poona . . .	2,322 {	...	...	7 12	54	...	106	15	3	4	13	33	41	7	1	5	1	8	976	47	40	14	31
Kirkee . . .	1,693 {	63	...	2	179	...	107	2	2	...	16	89	17	25	...	2	2	41	1,065	33	11	11	19	
GROUP IX.—DECCAN	17,631 {	163	34	53	43	1,885	...	408	18	27	116	290	541	95	4	13	10	418	8,557	339	132	119	167	
Bombay . . .	648 {	1 3	330	...	2	2	4	4	8	88	27	15	...	1	5	3	46	726	28	8	18	20
Santa Cruz . . .	652 {	3	...	1	168	...	2	1	2	30	84	13	...	2	6	2	17	630	18	8	7	2
Cannanore . . .	351 {	...	...	1	13	...	18	...	3	...	...	5	7	1	...	...	4	25	202	11	4	13	8
Trivandrum . . .	56 {	...	...	...	2	...	...	...	...	...	...	...	2	...	...	...	...	3	13	1	1	...	2
GROUP X.—WEST-ERN COAST.	1,707 {	3	...	2 4	513	...	22	2	7	5	10	123	120	29	...	3	11	9	91	1,571	58	21	38	32
A																								
Bellary . . .	411 {	...	6	...	8	...	10	1	4	2	8	1	...	5	7	156	9	1	1	5
Bangalore . . .	3,229 {	1	...	1	692	...	59	10	3	3	31	58	131	23	3	1	...	37	94	2,085	72	39	29	26
B																								
Trichinopoly . . .	369 {	...	4	...	10	...	...	...	...	4	...	2	5	5	...	...	2	8	89	3	1	...	7
St. Thomas' Mount . . .	496 {	...	...	1	4	...	13	...	...	1	1	4	7	3	...	...	3	7	148	6	5	1	1
Madras . . .	118 {	...	1	...	5	...	...	...	...	...	...	13	11	1	...	...	1	4	114	6	1	...	3
GROUP XI.—SOUTH-ERN INDIA.	4,623 {	1	11	1 2	719	...	82	10	3	9	36	79	162	32	3	2	...	48	120	2,592	96	47	31	42
Maymyo . . .	841 {	...	...	6	148	...	10	...	7	2	5	24	32	14	...	...	1	25	605	27	4	15	6
Kohima . . .	176 {	...	...	1	36	...	...	...	...	...	...	8	9	2	...	...	10	10	98	5	7	1	2
Shillong . . .	759 {	15	1	...	181	...	1	...	3	2	2	9	21	4	...	1	6	20	606	20	6	2	12	
Gangtok . . .	127 {	...	1	...	16	...	3	...	...	...	...	13	3	...	...	...	2	88	3	...	...	...	2
Chumbi (including Pharijong) (Tibet).	25 {	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	4	...	...	...	...	...
Gyantse . . .	73 {	...	...	...	8	...	...	...	2	...	4	5	3	...	...	...	3	35	2	...	1	2	...
Almora . . .	630 {	...	...	7	131	...	30	...	1	6	2	15	4	...	...	13	38	464	15	4	16	18	...

NATIVE TROOPS, 1908.

TABLE XXIX—continued.

ACTUALS of STATIONS, GROUPS, and ARMIES, on which the ratios in Tables XXVI—XXVIII have been calculated.

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSIONS.															2. DEATHS.									
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Malta Fever.	Pyrexia of uncertain origin.	Plague.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Syphilis.	Soft Chancre.	Gonorrhœa.	
Naini Tal . . .	119 {	...	...	...	...	17	...	...	...	2	2	2	3	3	...	...	...	1	2	55	2	...	1	1
Lansdowne . . .	2,859 {	1	4	10	...	387	...	3	...	11	49	12	96	31	...	1	...	17	15	1,161	50	1	1	13		
Simla . . .	356 {	...	...	...	...	309	...	1	...	2	1	16	34	...	...	1	...	6	13	455	11	5	3	5
Jutogh . . .	202 {	...	...	...	...	23	...	...	...	...	2	2	9	1	...	...	...	2	2	71	4	2	...	...
Dharmasala . . .	1,453 {	5	...	3	...	139	...	...	...	11	11	12	14	11	...	2	...	9	16	453	16	5	2	9
Bakloh . . .	1,413 {	47	...	...	...	238	...	...	1	6	2	13	21	10	...	...	1	8	9	607	22	4	1	4
Khairagali . . .	57 {	...	...	...	...	18	...	5	...	...	2	2	...	...	...	1	...	...	...	38	2	...	...	...
Baragali . . .	61 {	...	...	...	...	4	...	8	...	...	...	...	2	2	...	...	...	2	1	52	1	1	...	...
Kalabagh . . .	62 {	...	...	...	...	7	...	...	...	...	...	1	2	1	...	...	...	3	...	42	2	...	...	...
Chitral . . .	178 {	...	...	...	...	3	1	...	...	...	5	2	1	...	...	2	1	3	...	38	2	...	...	...
Kila Drosh . . .	681 {	...	...	1	...	146	1	3	...	3	10	11	10	8	...	3	...	8	4	330	20	3	...	1
Malakand . . .	764 {	...	...	...	...	215	...	1	...	2	23	31	30	1	...	1	5	12	4	605	22	2	...	2
Dargai . . .	320 {	...	...	1	...	371	...	1	1	...	11	7	10	...	...	...	...	2	2	534	12	2	...	...
Chakdara . . .	467 {	...	...	1	1	722	...	1	...	1	6	7	9	4	...	...	...	4	4	856	17	...	1	3
Abbottabad . . .	3,340 {	...	36	40	...	1,102	...	177	...	4	70	133	93	41	...	4	1	44	58	2,803	131	4	26	28		
Cherat . . .	26 {	...	...	...	...	2	...	...	...	1	1	...	3	...	...	...	...	1	...	11	...	...	...	...
Fort Lockhart . . .	154 {	...	...	...	...	87	1	...	...	...	4	5	3	1	...	...	...	4	2	143	3	...	1	1
Hangu . . .	454 {	...	...	...	...	39	...	...	...	4	4	7	12	1	...	...	...	1	9	208	9	6	3	...

STATIONS AND GROUPS.	Average annual strength.	1. ADMISSIONS.										2. DEATHS.													
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Malta Fever.	Pyrexia of uncertain origin.	Plague.	Circulatory diseases.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Veneral Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Syphilis.	Soft Chancre.	Gonorrhœa.
Mir Ali Khel . . .	96 {	...	...	...	...	84	...	...	...	...	2 1	4	12 1	1	...	1	...	2	...	...	132 2	3	...	...	...
Fort Sandeman . . .	472 {	...	1 1	...	1	130	...	...	...	4	21 4	13	47 1	1	...	3	2	34	12	...	354 8	16	8	...	4
Hindu Bagh . . .	30 {	...	...	...	...	17	...	...	...	...	...	...	4	...	...	...	...	2	...	...	26	1	...	...	...
Musa Khel . . .	30 {	...	...	...	...	15	...	...	...	...	...	...	6	...	...	...	...	...	...	...	22	1	...	...	...
Kila Saifulla . . .	30 {	...	...	...	...	28	...	...	...	...	...	...	11	...	...	...	...	...	...	...	42	1	...	...	...
Murgha . . .	49 {	...	...	...	...	35	...	...	...	...	1	...	7	...	...	...	...	2	1	...	50	2	...	...	1
Loralai . . .	1,017 {	24	...	...	...	241	...	...	...	...	32 4	38	10	30	...	1	2	55	4	...	671 5	16	...	...	4
Gumbaz . . .	32 {	...	...	...	...	17	...	...	...	...	1	...	3	...	...	...	...	...	...	...	25	1	...	...	...
Quetta . . .	4,862 {	21	...	3	15 7	519 1	...	174	2	12	33 3	78 20	179 3	209 1	96 4	...	5 1	17	82	59	2,548 46	94	24	6	29
Robat . . .	202 {	...	...	...	...	15	...	...	...	...	...	8	16	8	...	...	16	6	...	...	119 1	4	...	...	...
Pishin . . .	31 {	...	1	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	3 1	...	...	...	...
Shelabagh . . .	81 {	...	...	...	...	4	...	3	...	...	...	5	3	...	...	...	1	...	1	...	44	1	...	...	1
Chaman . . .	641 {	...	...	1	1	6	...	21	...	1	3	5	11	1	...	...	1	2	1	...	116 1	6	1	...	...
Mount Abu . . .	80 {	...	...	...	...	83	...	...	...	...	...	4	3	...	...	...	...	...	...	...	111	3	...	...	...
Ootacamund . . .	177 {	...	...	...	...	...	...	1	...	...	4	...	1	...	...	1	...	...	3	...	24	2	3	...	...
Camp Lovedale . . .	38 {	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	1	...	11	1	...	...	1
GROUP XII.—HILL STATIONS.	23,465 {	113 3	43 33	5 ...	87 25	5,545 22	3 ...	443 4	3 ...	35 6	92 20	364 60	582 11	778 4	26 4	...	26 1	48 ...	352 3	321 ...	14,660 232	550	92	80	149
Marching India . . .	8,640 {	5 ...	12 6	1 ...	2 ...	1,090 1	...	24	...	5	13 5	77 3	84	236	58 1	...	3	2	35	43	2,570 25	49	8	10	25
Bazar Valley Field Force.	333 {	...	...	1	...	7	...	...	...	...	11	2	5	...	...	...	...	...	2	...	64 2	1	1	1	...
Mohmand Field Force.	1,185 {	1	12	...	...	109	...	...	...	...	17 1	8	64	29	...	...	...	...	3	...	607 42	20	1	1	1
EXTRA INDIA. (a) In the Indian Command:—																									
Chabbar . . .	52 {	...	...	...	...	53	...	...	...	...	2 2	...	14 1	4	...	...	...	3	...	...	84 4	3	...	...	...
Jask . . .	65 {	...	...	...	...	5 1	...	...	...	...	...	1	18 1	...	...	...	7	...	...	...	40 2	2	...	...	...

NATIVE TROOPS, 1907.

TABLE XXIX—continued.

ACTUALS of STATIONS, GROUPS, and ARMIES, on which the ratios in Tables XXVI—XXVIII have been calculated.

STATIONS AND ARMIES.	Average annual strength.	1. ADMISSIONS.										2. DEATHS.														
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Malta Fever.	Pyrexia of uncertain origin.	Plague.	Circulatory Diseases.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Hepatic Congestion and Inflammation.	Scurvy.	Anæmia and Debility.	Venereal Diseases.	ALL CAUSES.	CONSTANTLY SICK.	Syphilis.	Soft Chancre.	Gonorrhœa.	
M uscat	20 {	...	...	...	...	11	...	...	...	1	2	1	...	1	...	...	...	...	...	...	18	1	...	...	...
Bushire	67 {	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	7	...	...	...	...
Baghdad	36 {	...	...	...	...	...	...	...	...	2	2	...	...	...	...	...	...	...	...	...	2	...	...	...	...
Aden	679 {	...	...	...	...	24	...	87	...	4	1	4	9	27	29	...	...	7	25	2	387	17	...	1	1
Khormaksar	86 {	...	...	...	...	10	...	3	...	...	...	6	3	...	...	...	...	...	...	1	62	2	...	...	1
Perim	36 {	...	...	...	...	2	...	...	...	...	...	33	1	...	...	...	...	5	...	47	1	...	...	...	...
(b) Not in the Indian Command:—																										
Colombo	762 {	...	...	...	...	59	...	...	...	1	1	64	72	19	...	1	2	5	15	433	14	8	1	6	...
Singapore	778 {	...	...	...	2	63	...	8	...	...	2	17	98	5	...	1	1	28	9	512	28	5	1	3	...
Tien-tsin	650 {	...	...	...	...	1	...	13	...	6	7	24	10	1	...	...	...	1	10	332	26	4	1	5	...
Lutai	61 {	4	...	...	...	...	...	1	...	1	...	1	...	1	...	...	...	...	1	13	1	1	...	...	...
Shan-hai-Kwan	114 {	3	...	...	...	1	...	1	...	6	...	2	...	...	...	...	...	...	4	28	5	2	2	...	...
Tongshan	38 {	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	16	1	...	1	...	...
Hong Kong—South China.	1,451 {	81	...	...	1	119	...	47	...	1	11	149	42	10	...	1	...	8	29	1,135	52	11	4	14	...
ARMY OF INDIA.		† Remaining from 1907.	43	...	8	25	450	6	31	...	7	36	270	139	84	10	4	3	11	79	...	2,734
Admission s		† 126,975	482	174	103	350	33,797	23	2,056	36	147	378	1,623	2,570	5,019	1,115	11	93	191	1,538	1,934	85,637	2,899	625	541	768
Total deaths			3	116	3	73	74	...	11	14	22	53	279	37	28	8	2	2	...	16	2	941	...	2
Deaths out of hospital . . . . .			...	2	...	...	...	...	...	8	...	1	...	...	...	...	...	...	...	59	...	...	...	...	...
INDIA.		† Remaining from 1907	43	...	7	25	437	6	31	...	7	22	269	132	82	10	4	3	11	65	...	2,653
Admissions		§ 121,603	393	162	102	347	33,438	23	1,986	36	146	364	1,574	2,302	4,728	1,050	11	90	188	1,496	1,860	82,497	2,751	592	529	739
Total deaths			3	111	3	73	73	...	11	14	21	52	274	36	28	8	2	1	...	15	2	885	...	2
Deaths out of hospital . . . . .			...	2	...	...	...	...	...	8	...	1	...	...	...	...	...	...	...	38	...	...	...	...	...
NORTHERN ARMY		62,141 {	164	102	35	251	22,882	20	952	3	59	221	984	1,071	2,675	488	4	50	75	851	795	49,500	1,613	254	219	322
SOUTHERN ARMY		50,822 {	224	48	66	94	9,466	3	1,010	33	82	130	513	1,147	1,817	504	7	37	111	610	10,22	30,427	1,089	330	300	392

* As far as returns have been received. † Remaining + admitted = total treated.
 ‡ Including troops in Extra India not in the Indian Command and Field Forces.
 § Excluding troops in Extra India not in the Indian Command and Field Forces.

GROUPS AND ARMIES.	1. AVERAGE STRENGTH.						2. CONSTANTLY SICK.						TOTAL.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
I.—BURMA COAST AND BAY ISLANDS. {	1,612	971	1,194	1,200	1,202	1,029	1,053	1,244	1,317	1,438	1,568	1,600	15,428
	24	19	20	18	23	25	25	27	30	24	35	27	297
II.—BURMA INLAND . {	1,225	3,098	3,061	2,900	2,914	2,526	2,713	2,983	2,982	3,011	3,212	3,244	33,869
	40	78	99	79	69	61	78	82	71	84	86	91	918
III.—ASSAM . . . {	1,123	1,004	927	788	779	800	845	875	896	987	1,038	1,006	11,068
	17	16	16	17	16	18	20	21	25	32	29	25	252
IV.—BENGAL AND ORISSA . {	2,511	2,747	2,407	1,889	1,814	1,881	1,866	1,888	1,878	2,430	2,699	2,626	26,636
	87	50	44	36	32	36	59	64	74	81	95	79	737
V.—GANGETIC PLAIN AND CHUTIA NAGPUR. {	7,100	6,988	5,998	5,221	5,530	4,998	5,178	5,324	5,714	7,062	6,532	6,031	71,676
	101	99	76	74	111	75	74	115	145	224	204	146	1,444
VI.—UPPER SUB-HIMALAYA . {	25,830	26,680	24,110	19,354	18,911	18,826	18,484	18,862	18,998	20,226	23,064	23,775	257,120
	550	430	335	319	370	372	330	376	597	777	811	695	5,962
VII.—NORTH-WESTERN FRONTIER, INDUS VALLEY, AND NORTH-WESTERN RAJPUTANA. {	21,446	19,266	18,578	15,783	17,041	16,573	16,176	16,313	16,809	17,649	18,098	19,061	212,793
	677	564	465	368	442	505	440	450	609	786	864	722	6,892
VIII.—SOUTH-EASTERN RAJPUTANA, CENTRAL INDIA, AND GUJARAT. {	16,201	15,106	13,491	10,414	10,469	9,793	10,076	10,159	10,537	12,116	13,283	13,705	145,350
	310	293	224	175	172	143	156	207	304	377	403	332	3,096
IX.—DECCAN . . . {	18,221	19,628	16,829	15,016	14,330	15,524	16,919	17,100	17,482	20,120	20,093	20,310	211,572
	344	313	276	277	280	258	297	349	377	428	434	442	4,075
X.—WESTERN COAST . {	1,318	1,420	1,890	1,590	1,586	1,603	1,560	1,641	1,645	1,979	2,134	2,125	20,491
	60	52	57	46	40	46	41	45	54	73	84	93	691
XI.—SOUTHERN INDIA . {	4,228	3,653	3,602	3,592	3,835	4,353	5,112	5,285	5,333	5,400	5,576	5,500	55,469
	143	93	71	67	56	78	120	125	105	111	107	82	1,158
XII.—HILL STATIONS . {	23,850	22,575	24,050	24,287	22,041	23,024	22,472	23,420	23,326	24,134	24,464	23,908	281,551
	556	510	463	444	417	497	481	610	682	635	683	591	6,569
ARMY OF INDIA*	142,484	144,655	130,285	115,379	123,935	114,218	113,401	115,310	117,487	129,293	137,651	139,565	1,523,663
	3,135	2,697	2,316	2,145	2,423	2,387	2,287	2,647	3,258	3,828	4,087	3,545	34,755
INDIA† {	138,630	137,150	125,640	110,480	108,778	108,541	109,555	111,477	113,699	125,531	133,909	135,813	1,459,203
	3,044	2,596	2,199	1,993	2,066	2,166	2,167	2,522	3,142	3,709	3,948	3,428	32,980
NORTHERN ARMY . . {	72,014	69,330	65,907	58,186	57,337	57,327	56,125	57,058	58,184	62,554	65,336	66,348	745,706
	1,780	1,473	1,233	1,126	1,255	1,348	1,243	1,394	1,849	2,312	2,366	2,001	19,380
SOUTHERN ARMY . . {	53,675	54,830	51,247	44,894	44,211	44,636	47,330	49,047	49,757	55,039	57,505	57,646	609,817
	1,154	1,068	932	815	794	792	900	1,101	1,254	1,354	1,497	1,352	13,013

* Including troops in Extra India not in the Indian Command and Field Forces.
† Excluding troops in Extra India not in the Indian Command and Field Forces.

TABLE XXX.

ABSTRACT of the CANTONMENT SANITARY REPORTS of the most UNHEALTHY STATIONS, SANITARY DEFECTS, IMPROVEMENTS, SUGGESTIONS, etc.

The ratios of sickness and mortality will be found in Table XXVIII.

NORTHERN ARMY.

Abbottabad.—All the *nullahs* running through the Cantonments require properly cemented drains to prevent the formation of stagnant pools; and two ponds—one in Cantonments and the other on the border line—require to be drained. Defects in accommodation still exist in the $\frac{1}{4}$ th and $\frac{1}{8}$ th Gurkha Rifles lines. The trenching system of the town of Abbottabad is now much improved and the Municipal authorities have under consideration the question of the construction of a number of incinerators of the “Raitt” pattern, of which one has been constructed and is working satisfactorily. Arrangements are being made to construct more incinerators, sufficient for the use of the whole station. Washing places are required near the cook-houses of the $\frac{1}{4}$ th, $\frac{2}{8}$ th and $\frac{3}{8}$ th Gurkha Rifles lines, and the floors of cook-houses in all the lines should be cemented. An expenditure of Rs. 5,026 was incurred during the year on the improvement of the drainage, construction of an incinerator, etc.

The Cantonment Committee make the following suggestions:—(1) to take in a portion of the land, as far as the link road, which is at present used for cultivation; (2) to construct cemented stone drains in all the main *nullahs* in Cantonments; (3) to drain the ponds above referred to; (4) to cement the floors in all the battery and regimental cook-houses; (5) to construct a hospital for the treatment of sick British officers, as at present there are no quarters whatsoever available for their treatment when suffering from an infectious or contagious disease.

The defects which they consider require to be remedied in the order of urgency are:—(1) the deficient accommodation in the barracks of the $\frac{1}{4}$ th and $\frac{1}{8}$ th Gurkha Rifles; (2) the want of ventilation and fire-places in the married quarters of the $\frac{1}{4}$ th Gurkha Rifles; (3) the deficient accommodation in the $\frac{1}{4}$ th and $\frac{2}{8}$ th Gurkha Rifles hospitals, as there are only 30 beds in each hospital instead of 50; (4) the cementing of the floors in all the Battery and regimental cook-houses; (5) the want of cemented drains in all the *nullahs*; (6) the drainage of the ponds referred to by the medical officer in the preceding paragraph; (7) the want of washing-up places near the cook-houses in the $\frac{1}{4}$ th, $\frac{2}{8}$ th and $\frac{3}{8}$ th Gurkha Rifles lines; (8) the need of quarters for the treatment of sick British officers.

The Principal Medical Officer of the Abbottabad and Sialkot Brigades concurs with the suggestions made for remedying the defects, but differs in regard to the order of urgency.

The General Officer Commanding the Abbottabad Brigade makes the following remarks:—(1) Proposals for taking in the land, now used for rice cultivation, were submitted in October last and are now under the consideration of the General Officer Commanding the Division; (2) the construction of stone drains in the *nullah* between the $\frac{2}{8}$ th and $\frac{1}{8}$ th Gurkha Rifles lines has already been commenced; and the General Officer Commanding the Division has noted the question of allotting funds for the other drains; (3) the question of the drainage of the ponds in Cantonments has been the subject of much consideration and correspondence and whether it is or is not insanitary was discussed (with much difference of opinion) and the cost of draining or filling it up, estimated at Rs. 3,000. The final pronouncement on the subject was an intimation from the Commanding Royal Engineer, 2nd (Rawalpindi) Division that “under the circumstances it seems best to leave the pond alone.” As regards the pond on the border line, it is out of Cantonments, and in January 1908, the Cantonment Magistrate reported as follows:—“The tank in the civil lines supplies water for watering the City streets and Municipal gardens. When the Chief Commissioner agreed to the area known as “Malikpura” being included in Cantonments, he made it a condition that this tank should not be interfered with. The General Officer Commanding the Brigade was forced to agree to this condition and I feel sure the Civil authorities will stick out for their rights in the matter”. He considers the cementing of the floors in the cook-houses a very desirable sanitary measure. He adds that this remark applies to the cook-houses of every Indian corps in India, none of which, to the best of his knowledge, has cemented floors. The question being a general one, he is submitting proposals separately and also on the proposal for the construction of a hospital for British officers. In regard to the defects brought to notice he agrees as to the urgency of the measure for providing additional accommodation in the $\frac{1}{4}$ th and $\frac{1}{8}$ th Gurkha Rifles lines and states that provision was included in the Schedule of demands for 1908-09 but was omitted from the Budget estimate; and it was again included in the Schedule of Demands for 1909-10. The plinth area estimate for remedying the defects in regard to ventilation and the provision of fire-places was sanctioned last year, but no funds were allotted. The item has been included in the major works estimate for 1909-10 and includes the provision of 254 fire-places at a cost of Rs. 5,080; also for the provision of accommodation for 20 extra beds in the hospitals of the $\frac{1}{4}$ th and $\frac{2}{8}$ th Gurkha Rifles and he adds that Rs. 5,500 was included in the requirements of major works for 1909-1910 for the purpose; and that an estimate will be called for for the separate hospital for special cases instead of the extra accommodation recommended by the Brigade Principal Medical Officer. Concurrence is also expressed as to the desirability of providing washing places; the question of the pattern is under consideration, as he does not approve of the one adopted by the 1-6th Gurkha Rifles. In regard to the remarks of the Brigade Principal Medical Officer for the carrying out of incineration throughout the station, he states that general incineration is to be adopted in the Cantonment, and funds have been asked for the construction of six more incinerators, which will make a total of seven.

Barrackpore.—The chief defect of the drainage of Cantonments is the branch of the main drain which runs North and South near the Native Infantry lines. The drains of the Grass Farm are also a defect, and the farm being so close to the barracks is also considered undesirable as the top-dressing and trenching of bazaar rubbish breed flies. The drains in the Suddar bazaar are still imperfect and several drain into tanks, which is most objectionable, but money will be allotted during 1909-1910 for their improvement. The bazaar itself is still overcrowded in some *mohullahs*, and its gradual opening out is progressing as funds permit. No action has been taken to remedy the defect in regard to the *Mistry-ghat*, a portion of the North Barrackpore Municipality and in the vicinity of the Cantonment which is very overcrowded and unhealthy, but the subject will receive the consideration of the Committee.

The Cantonment Committee suggest that the branch of the main drain should be made *pucca* throughout its whole length, as at present the water accumulates in it and so affords a breeding place for mosquitoes. They say that an allotment will be made from the Cantonment fund, when the money is available, for the construction of this drain, and the Military Works Department will be asked to have their portion constructed, as only a portion of this main drain comes under the control of the Cantonment authorities. The drains of the Grass Farm which lead into the branch of the main drain should be made *pucca*, and until this is done they should be properly dressed and kept free from over-growth, as at present they afford breeding grounds for mosquitoes consequently fills the barracks with flies as the trenching this year was carried out in a most unsatisfactory manner. They state that improvements in the drainage of the Suddar bazaar cannot be carried out for want of funds; that further opening out is imperatively necessary, and funds only are required to be allotted for compensation. They consider that the Municipal Commissioner should take systematic steps to prevent further building in the vicinity of Cantonments, and thin out existing thickly populated areas; that more regard should be paid to the sanitation, and the trenching grounds should be removed as far off as possible.

The Principal Medical Officer of the Presidency and Assam Brigades states that the health of the station has improved, but that there is still much room for improvement in the drainage, and that there should be more *pucca* drains to carry off the surface water.

The General Officer Commanding the Presidency Brigade remarks that the Military Works Service is starting to make *pucca* a portion of the main drain, and the Cantonment Committee are prepared to complete their portion of it. He proposes to communicate with the Commissioner in regard to the limitation of further building and the overcrowding; and considers that most of the requirements are purely a question of funds being provided.

Cawnpore.—The drainage of the Cantonment is not altogether satisfactory and there are several *nullahs* and holes where the water lodges after rain. The Native Cavalry lines are not well drained and there is a large excavated hole behind them where water lodges. The water supply is derived entirely from wells which, under certain circumstances, become contaminated, especially those in bazaars and private compounds. The bazaars in Cantonments are becoming congested and would be improved by being opened up in places by new roads, &c.

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TABLE XXX—continued.

ABSTRACT of the CANTONMENT SANITARY REPORTS of the most UNHEALTHY STATIONS, SANITARY DEFECTS, IMPROVEMENTS, SUGGESTIONS, etc.

The Cantonment Committee suggest the provision of a piped supply of filtered water to the barracks and bazaar with the necessary stand pipes, hydrants, etc., the opening up of the bazaar in the more congested parts by wide roads; and the filling up as far as practicable, of all holes, depressions or excavations where the water lodges after rain, and the improvement of the drainage in places.

The Principal Medical Officer of the Allahabad and Fyzabad Brigades endorses the recommendations of the Cantonment Committee and adds that the piped water supply is urgently needed.

The General Officer Commanding the Allahabad Brigade concurs in the suggestions made by the Cantonment Committee and considers that for the improvement of the place a piped water supply is needed and that incinerators should be introduced, the pail depôt being gradually abolished, as he considers it objectionable in several ways; it is at times very offensive, pollutes the river, and costs money without giving any return as in the case of trenched land. He recommends that the excreta from the pail depôt area of the Cantonment should be burnt in incinerators, and where this system cannot be worked trenching must be resorted to. He adds that the suggestion for the opening up of congested bazaars by wide roads is now receiving attention.

Dargai.—No sanitary report.

Dehra Dun.—The river Tons forms large swampy areas which are the breeding grounds for mosquitoes. An analysis of the water supply for the old cantonment (Birpur and Gangora) shows contamination, and the Divisional Sanitary Officer's report and suggestions for its improvement are awaited. The village of Gharigaon in the middle of cantonments is an insanitary area and a danger to the health of cantonments. The present pattern of urinary is unsatisfactory, but a new pattern is being tried. There are many *nullahs* covered with scrub, and these are often fouled by villagers and travellers. An expenditure of Rs. 308 was incurred during the year on the provision of incinerators.

The Cantonment Committee state that the introduction of incineration throughout the cantonments is indicated, as the local conditions are unfavourable for trenching.

The Principal Medical Officer of the Bareilly and Gharwal Brigades remarks that, in his opinion, incineration is the best method of disposing of night soil, but he does not recommend that a change be made until the result of the experiments which are now being made with four incinerators is definitely known.

The General Officer Commanding Garhwal Brigade states that it would not be safe to clean the *nullahs* of scrub as the sides would fall in, he adds that incinerators are only in an experimental stage, and their introduction will depend on the results of trials; which, however, have had to be discontinued at Ghangora for want of funds to pay for stable litter.

Delhi.—The drainage in the Fort is unsatisfactory, but new drains are being laid down. The Panchakki *nahr* (canal) has been closed at its lower end to prevent its opening into the Fort ditch; and the diverting of the two city drains is, it is understood, being considered.

The Cantonment Committee offer no suggestions.

The Principal Medical Officer of the 7th (Meerut) Division remarks that Delhi Fort is notoriously unhealthy owing chiefly to surroundings and faulty drainage, as the moat receives the city surface drainage and has no outlet. There is a small stream which is diverted from the river in flood and later is fed by city drainage only, and the presence of this open, sluggishly flowing drain is most insanitary. The surface drainage is generally defective, and the numerous hollows forming pools cause an excess of malarial disease. Steps should at once be taken to remedy these evils, and the hollows and water holes filled in as the Fort must always be unhealthy unless a good and effective system of drainage is devised. The surface drainage in the 35th Sikh lines is unsatisfactory and wants improving.

The General Officer Commanding the Meerut Cavalry Brigade concurs in the preceding remarks. He adds that the Fort during the autumn months is a regular "death trap" and in his opinion unfitted for occupation by troops until the moat is pumped dry and the surface drainage of Delhi diverted into the Jumna.

Dera Ismail Khan.—Owing to the flat nature of the ground, the small fall to the river level in the wet and rainy season, and the stiff clay of which the Cantonment is composed, it is and always will be difficult to drain the surface of storm water. Permanent drains with carefully regulated gradients are still required in many places. The water supply is sufficient in quantity, but being derived from shallow wells, is always liable to contamination. There is no bazaar within the cantonment, and the sanitary condition of the large native city close to cantonments is bad, although much has been done of late years to improve it. The latrines and urinaries are all moveable; the removal system is in use and the night soil is trenched. One incinerator of Raitt's pattern has been installed, and it is proposed to add two more shortly. A well regulated Suddar bazaar, which would render the Cantonments independent of the City during periods of prevalence of infectious diseases, is required. An expenditure of Rs. 1,704 was incurred on the construction of a *Dhobi ghat* and one incinerator.

The Cantonment Committee report that :—

(a) The seating accommodation in existing latrines is insufficient, and in many cases the pans provided are earthenware.

(b) Many of the drains should be made permanent,—it is understood that the most necessary ones are being taken in hand this year by the Military Works Department. Those from the Cavalry lines end in a depression close to a well and require to be graded.

(c) They consider the provision of a good Suddar bazaar is very necessary as when the City is placed out of bounds, owing to the prevalence of infectious disease, the troops experience much inconvenience. As a remedy they suggest that the present syce lines of the Native Cavalry, situated in a central position, be purchased, improved and converted into a Suddar bazaar, the syces being accommodated to the west of the cavalry lines.

(d) The washing of the clothes of troops is carried out in a back-water of the river, which for many months is a stagnant pond, getting very foul before the river rises. They suggest that *ghats* for each unit be provided at an approximate cost of Rs. 3,000 to 4,000.

The Principal Medical Officer of the Derajat and Bannu Brigades remarks as follows :—

(1) That the system of *kutchra* drains with built drain-guides at intervals has proved not only inefficient in the soil and conditions at this station but objectionable. Although much has been done to improve the drainage of the Cavalry and Battery lines, more is urgently required.

(2) The levels of some of the new drains at the Fort require correction as they do not flow properly.

(3) The new *Dhobi's ghat* for officers is working satisfactorily, and the idea of providing a similar advantage to the men is an excellent one.

(4) The proposed new Cantonment bazaar is in a good position, and the scheme should be both sanitarily and financially a success.

(5) The incinerator is working only moderately well, and he considers that a trained sweeper might be asked for from Rawalpindi to show the people how to work it.

(6) The spaces cleared behind the butts continue open and unobstructed owing to the thoroughness with which the grass roots were extracted and shows that the tall Pampas grass is easily eradicated if properly dealt with.

(7) The Gharaban has been finally closed.

(8) The covering of the wells in the lines of units should be proceeded with whenever funds permit.

The General Officer Commanding the Derajat Brigade states that all the measures under consideration are very desirable, but financial considerations make it improbable that many of them can be thoroughly carried out within a reasonable time. The provision of a really adequate system of bricked drains would mean a very heavy expenditure, while owing to the nature of the soil and the slight fall of the ground unbricked drains are very ineffectual and objectionable; their gradual replacement as funds permit by bricked drains is most desirable. He considers that the provision of a Suddar bazaar also is an extremely desirable measure and should prove a productive one if vendors

TABLE XXX—continued.

ABSTRACT of the CANTONMENT SANITARY REPORTS of the most UNHEALTHY STATIONS, SANITARY DEFECTS, IMPROVEMENTS, SUGGESTIONS, etc.

will take up the proposed accommodation and that enquiries on this point are in progress. He hopes that some improvement in the income of the cantonment will accrue from improved rents of land when the Paharpur canal water reaches the station and also from the exploiting of the river-side belt of trees.

Fatehgarh.—All holes, etc., within cantonments have been filled up as far as possible. The latrines used in the Fort are obsolete and insanitary, but the matter is at present under consideration.

The Cantonment Committee offer no suggestions.

The Principal Medical Officer of the 7th (Meerut) Division remarks that the surface drainage generally requires looking to, and many hollows throughout the lines should be filled in. An old-fashioned and foul-smelling latrine at present in use in the Fort should be abolished.

The General Officer Commanding the Division offers no remarks.

Jandola.—No sanitary report.

Kila Drosh.—No sanitary report.

Manipur.—The cantonment is drained as well as is possible, until the *pucca* drains, now under consideration, are put in. The water supply, which is derived mainly from wells and tanks, is good, except in the hot weather, especially in April, May and June. The barracks in the Fort are very poor, being constructed of mud laths, and they require complete reconstruction. An expenditure of Rs. 578 was incurred during the year on minor works of improvement.

The Cantonment Committee, the Principal Medical Officer of the Presidency and Assam Brigades and the General Officer Commanding the Assam Brigade make no remarks.

Mardan.—The land in the neighbourhood of the 3rd squadron lines and riding schools requires attention, and the surface drainage should be improved. Many pits which have been dug for procuring earth for repairing the riding schools, should be filled in, as *anopheles* breed in them. The bazaar lying between the 4th Troop lines and the wood *sarai* is insanitary; the houses are badly built, dark and imperfectly ventilated.

The Cantonment Committee make no suggestions.

The Principal Medical Officer of the 1st (Peshawar) Division remarks that steps should be taken locally to fill up the "borrow pits" referred to above, before the mosquito season, and a Station Order prohibiting the digging of such pits in, or adjacent to, the Lines should be issued. If the houses complained of are considered insanitary by the Cantonment authorities, their powers should be exercised to have the defects removed by the owners.

The Lieutenant General Commanding, 1st (Peshawar) Division offers no remarks.

Nowshera Cavalry Cantonment.—There are no *jheels* or marshes and places where water lodges are being ploughed and levelled. The water supply is of good quality, but somewhat deficient during the hot weather. The Nowshera *Kalan*, which is about two miles from the cantonment is very insanitary after rain, but the Civil authorities have been approached on the subject and are going to improve the place. An expenditure of Rs. 2,300 was incurred during the year on levelling and ploughing broken ground where water lodges.

The Principal Medical Officer of the 1st (Peshawar) Division remarks that the provision of a more liberal scale of coal for the pumping engine is an urgent sanitary necessity; and if not already done, a special representation on the subject should be made.

The Lieutenant-General Commanding 1st (Peshawar) Division states that the water supply arrangements are receiving attention.

Peshawar.—The irrigation water channels are being gradually made *pucca* as funds permit. The removal system is being gradually done away with and all latrine and urinary excreta are being consumed in incinerators, in the portions of the Cantonment under the Cantonment Committee. The present method of excreta disposal by carriage and burial at a distance is open to grave objections and might be met by a system of incineration on the spot. An expenditure of Rs. 5,940 was incurred on *pucca* irrigation water channels, latrines and incinerators.

The Cantonment Committee remark that the chief measures now being carried out for improving the sanitary condition of the station are as follows:—

(a) The abolition of servants' latrines in compounds and the erection of cantonment group latrines in their place. Twenty-three group latrines have now been completed, and the remainder will be built in the forthcoming year. This is a most important sanitary improvement, as it does away with private servants' latrines which are, as a rule, most insanitary.

(b) The introduction of incinerators for disposal of excreta and rubbish. Twenty-five incinerators, large and small, chiefly of a modification of Major Raitt's pattern, have now been installed, and others are in process of construction. This method of disposal is undoubtedly suitable to Peshawar and does away with the necessity of filth carts travelling through the Cantonment and the consequent disadvantages.

(c) Making *pucca* the irrigation channels. This is strongly insisted upon by the medical authorities, as tending to reduce the numbers of breeding grounds for mosquitoes. The cost of the entire scheme will be very large; Rs. 6,640 has been expended in the year under review, and this work will be continued year by year as funds permit.

(d) The diminution of irrigation and vegetation on land adjacent to barracks; a quantity of land has been taken back from the Grass Farm and will be allowed to remain uncultivated.

They also make the following suggestions:—

Diminution of irrigation and vegetation; making *pucca* all *kutchas* drains; the removal of Grass Farm operations from the vicinity of the Cantonment; the removal of gradual extinction of the regimental bazaar; the rebuilding of the lines of the 53rd Sikhs and 59th Scinde Rifles; and the modification of the present system of excreta removal.

The Principal Medical Officer of the Division states that orders for the limitation of irrigation and cultivation have already been given by the Lieutenant-General Commanding. He considers a large extension of masonry surface drains a necessity, and that the work should be undertaken systematically as funds become available. A system of deep drainage is also called for, to relieve the water-logging of certain parts of the station, but this would be a matter far beyond local funds, and he is of opinion that any grouping of servants' latrines should be carried out with extreme caution, as inflicting a constant hardship, if applied without great care, and tending to insanitary rather than sanitary results.

The General Officer Commanding the Division remarks that all that can be done with the funds available is now being done to improve the sanitary condition of the station. Irrigation has been reduced very largely; drainage is being carried out; much superfluous vegetation has been removed; and incinerators have been introduced in most parts of the Cantonments. He adds that notwithstanding the medical cry for "more improvements", he feels sure that taken all round the troops are living in a hundred fold more sanitary surroundings than did their predecessors; and that no measures for further improving the Cantonment limits will be neglected.

Simla.—No sanitary report.

Shillong.—The *nullah* between the married and single lines is being made into a *pucca* drain but the drains in the lines should be similarly treated for a further distance of 50 yards towards the river. The married lines are deficient in cubic space, lighting and ventilation, and recommendations for rebuilding them have been again sent to the Principal Medical Officer of the 8th (Lucknow) Division after his inspection. One drain at the back of the regimental bazaar to be made *pucca* (about 150 yards long). All *kutchas* latrines to be pulled down and Delhi Durbar pattern ones to be substituted; all catch-pits in the latrines to be filled up if possible.

The Cantonment Committee offer no suggestions.

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TABLE XXX—continued.

ABSTRACT of the CANTONMENT SANITARY REPORTS of the most UNHEALTHY STATIONS, SANITARY DEFECTS, IMPROVEMENTS, SUGGESTIONS, etc.

The Principal Medical Officer of the Presidency and Assam Brigades again recommends that the *kutch*a drains be made *pucca* in various parts of the lines occupied by the $\frac{1}{8}$ th Gurkha Rifles.

The General Officer Commanding the Assam Brigade states that the *kutch*a drains are being made *pucca*.

SOUTHERN ARMY.

Bangalore.—There are numerous tanks near the barracks which receive surface and storm water more or less contaminated with sewage, and these tanks form extensive breeding grounds for mosquitoes of all kinds. The surface drainage is still very incomplete, the drains in many cases ending abruptly in *nullahs* in which filthy stagnant pools are formed. New hutting lines for the 20th Deccan Horse are under construction. The bazaars are all in too close proximity to the different military units. Compounds and open spaces are kept clean; in some places, however, open drains discharge into *nullahs*, constituting an insanitary condition. During the year several of these masonry drains have been continued to some distance.

The Cantonment Committee suggest that the surface masonry drains be extended and completed as funds are available and that an impermeable flooring be laid down in all latrines and urinaries, with the least possible delay.

The Principal Medical Officer of the Bangalore and Southern Brigades remarks that there are several tanks in the station which are a breeding ground for mosquitoes, and it would be an advantage if they were drained, and that the surface masonry drains are being improved as funds are available. In place of providing impermeable floors for the existing latrines in barracks, he recommends that the most recent type of latrines be erected when funds are available and also that the villages Byderbulli near the Pioneer lines, Nilsandra near the 20th Deccan Horse, Yellacondonpalaya near the 119th Infantry and Blackpelly near the 125th Napier's Rifles, which are hot-beds for malaria and plague be purchased and demolished.

The General Officer Commanding the Bangalore and Southern Brigades agrees with the remarks of Principal Medical Officer in regard to the tanks, but the difficulties in the way of the course he suggests are in most cases insurmountable, and he considers that the best alternative is to put small fish and frogs into the tanks to attack the larvæ. He adds that funds are not at present available to give effect to the other improvements. As regards the purchase of the insanitary villages he states that the matter has had the attention of the General Officer Commanding the Division, but difficulties connected with expense bar the way to these desirable reforms.

Bellary.—Two large tanks are close to the cantonments, and the Fort ditch contains water which is used by the native population, but in view of the small rainfall and the usual scarcity of water, these are a necessity. The water supply for the troops is obtained from unprotected wells, the quantity is scarce in the hot weather, the quality is fair.

The Cantonment Committee suggest:—(a) the protection of No. 2 well from ærial pollution by providing a suitable roof, and (b) the improvement of the Allipore tank catchment area by acquiring two villages and planting forest on the now cultivated area; but they add that effect cannot be given to the suggestions unless funds are sanctioned.

The Principal Medical Officer of the Bangalore and Southern Brigades repeats the suggestion he made last year, *viz*:—that the deep well from which the drinking water is obtained should either be satisfactorily covered in or the pump removed from over the mouth to one side.

The General Officer Commanding the Bangalore Brigade concurs with the opinion expressed by the Principal Medical Officer and adds that the question was gone into greater detail in correspondence between that officer and the Assistant Commanding Royal Engineer.

Bhamo.—The existence of the marshy land just near the Fort wall is prejudicial to health, and many of the drains inside the Fort are not *pucca*. Although there is no deficiency of the authorised cubic space in barracks, the buildings themselves are far too crowded together for health. The accommodation for servants in the vicinity of the officers' quarters is inadequate. The night latrines inside the Fort are most insanitary, the pattern of latrine is a bad one, and the floors are in bad repair. There is no want of cleanliness as regards the drains but many of them lend themselves to the accumulation of stagnant water. The night latrines require reconstruction, and marsh lands and *nullahs* require draining as far as possible.

The Cantonment Committee suggest that the present main drain in the marshy land to the south-west of the Fort should be cleaned out and some new subsidiary drains dug. The *pucca* drains inside the Fort should be extended as far as possible and the drain outside the south of the Fort wall, between it and the Native Infantry cook-houses, made *pucca*. More servants' quarters should be provided. A new type of night latrine to be selected and adopted and the present ones gradually removed as far as funds permit and the floors of the remainder repaired. A few night latrines should be constructed for the use of officers' servants inside the Fort. As regards the prevalence of malaria they suggest that all troops be supplied with mosquito curtains at Government expense.

The Principal Medical Officer of the Burma Division remarks that the drainage in and around the Fort needs looking to, and the matter is under consideration. He considers the question of the provision of mosquito nets an urgent one.

The General Officer Commanding the Mandalay Brigade is of opinion that Bhamo will never be a healthy site for troops, as the swamp bounding it on the south and south-west would have to be drained to make it so, and the cost of this is prohibitive. He has called on the Officer Commanding to experiment with several thousand seedlings of *Eucalyptus Globulus*. The accommodation for servants requires extension, but the Fort is overcrowded with buildings already, and when the garrison is reduced these should be sufficient. He considers that the provision of mosquito curtains for all troops and followers stationed in Bhamo is the least compensation that Government can give to the garrison for keeping them on so malarious a site.

Colaba (Bombay).—The Native Troops lines are not sufficiently ventilated and are too close to the crowded Town, so that causes of infectious disease are not controllable. There is a drain running from south to north through the east side of the lines, which carries dirty water to one of the main drains of the City and is often very foul and offensive.

The Cantonment Committee make no suggestions.

The Principal Medical Officer of the Bombay Brigade remarks that as funds are forthcoming existing defects are dealt with. The chief of these are:—(1) the marshy ground on the foreshore, for which reclaiming is the only remedy; (2) the insanitary *chawls*; (3) the Officers' quarters, which are very old, ill-constructed and obsolete. He considers that an expenditure of a comparatively small sum would make this station the healthiest site on the plains of India, and such expenditure could be met and more than met by the disposal of Government lands in Bombay—The Town Barracks for instance—which are useless and insanitary. The Marine lines are grossly insanitary and quite unfit for human habitation, and nothing short of demolition and evacuation will meet the case; and, moreover, the location of a battalion there is a public nuisance. He concludes by saying that Committees have assembled from time to time, and the whole question of the location of troops in Bombay has been discussed for many years back, but no result follows; that it is practically certain if the matter were thoroughly taken in hand, the whole of the garrison could be accommodated in Colaba, very much to their benefit and at no cost whatever; on the contrary, Government would make money out of it.

The General Officer Commanding the Bombay Brigade states that the Marine Lines are certainly unfit for habitation, but that nothing can be done until the large questions raised by the Military Lands Committee are dealt with.

Fort Sandeman.—The proximity of the bazaar is probably responsible for much malarial infection. The latrines in the lines being made of mud and stationary in position are responsible for much pollution of the surrounding ground; but these have been condemned and are now in process of demolition. The present position and buildings connected with the dairy cattle are insanitary, but efforts will be made to have these stands rebuilt in another position.

The General Officer Commanding the 4th (Quetta) Division states that malaria was very prevalent during the year owing to heavy rainfall and that the remarks made by the Principal Medical Officer last year have received attention.

TABLE XXX—*concluded.*

ABSTRACT of the CANTONMENT SANITARY REPORTS of the most UNHEALTHY STATIONS, SANITARY DEFECTS, IMPROVEMENTS, SUGGESTIONS, etc.

Jacobabad.—The Cantonment is intersected with canals and channels which form a favourable breeding ground for insect pests. The water supply is indifferent and brackish, and some of the wells have tanks close by in which people of the town wash themselves and their clothes. The accommodation is sufficient, but the family lines are crowded with people who have no connection with the regiment, but whose right to live there is difficult to contest. The conservancy arrangements in the family lines are defective, but it is practically impossible to supervise them. An expenditure of Rs. 1,889 was incurred during the year on the purchase of portable latrines and the provision of washing places for them.

The Cantonment Committee state that confidential proposals regarding the family lines have been submitted to the Assistant Adjutant General, 4th (Quetta) Division, but have been held over pending the receipt of a report by Mr. Mehta, Special Investigating Officer of Government title to Cantonment lands. They add that the attention of the Deputy Commissioner has been drawn to the extremely insanitary state of the bathing tank in the immediate vicinity of the Native Cavalry lines.

The Principal Medical Officer of the 4th (Quetta) Division remarks that in his opinion the sanitary condition of the station is bad, and that no body of troops is likely to maintain a good standard of health at this station under existing conditions. The water supply is from open shallow wells and liable to contamination. Analysis of samples of water from them recently made by the Divisional Sanitary Officer showed it to be of very inferior quality. He recently inspected these wells and thought that all are liable to gross pollution and he recommends that the well near the hospital be properly covered, fitted with a pump and a high level tank whence water could be distributed to the lines by pipes. The numerous irrigation channels render it impossible to check the breeding of mosquitoes and saturate the soil with moisture; soils so sodden notoriously lower the general standard of health, and the presence of myriads of mosquitoes must inevitably lead to the prevalence of malaria. At the time of his inspection the trenching of night soil was very badly carried out and flies were being bred in them in large numbers. The family lines are grossly insanitary and a constant source of danger to the health of all persons living in cantonments.

The General Officer Commanding the 4th (Quetta) Division says that it must be admitted that the sanitary condition of this cantonment is bad, as owing to the uncertainty as to whether it was to be continued as a military station matters have been allowed to lapse, but it is hoped that it will be in a better sanitary state before the next report is submitted.

Nasirabad.—The surface drainage is defective and breeding grounds for flies and mosquitoes exist either within or in the vicinity of cantonments, but steps are being taken to improve matters by enforcing sanitary regulations.

The Senior Medical Officer makes the following suggestions:—

- (1) Improvement of the surface drainage of the cantonment;
- (2) Levelling up the bed of the *nullah* west of the barracks, and construction of a shallow cement drain along the centre of it;
- (3) Gradual levelling up of the deepest parts of the quarries, especially the one between the barracks and the railway station;
- (4) Improvement of the course and levelling up the bed of the *nullah* between the Officer's bungalows and the bazaar, also filling in the shallow *diggies* (tanks) in the vicinity;
- (5) The constant stocking with small fish of the deep tanks.
- (6) The replacement by a pump of the *charsas* drawn by bullocks at the Danta well.

The Cantonment Committee make no suggestions.

The Principal Medical Officer of the 5th (Mhow) Division concurs with the above suggestions.

The General Officer Commanding the Nasirabad Brigade also concurs and is of opinion that the use of incinerators should be extended as much as possible and that a more ample piped water supply is required.

Trichinopoly.—The half-completed drains in the lines of the 75th Carnatic Infantry are prejudicial to health and should be completed. Two small tanks on the golf links are a favourite breeding place of *Anophelinae*, though larvicides are constantly used. The pipe water owing to defective filter beds is contaminated, but these are being repaired, and the quantity being insufficient an intermittent supply is enforced. Many buildings need repairing, especially the latrines in the married quarters, most of which have earthen floors which are saturated with urine and sullage water, and these ought to be cemented; as even with the use of *chatties* or other receptacles some contamination of the floors is unavoidable. Mazapet meat market is often in a very dirty state. A great nuisance in the cantonment is the use as latrines of the shelter given by culverts. The condition under most culverts is disgusting in the extreme, and though a special policeman has been detailed during the past five or six months to arrest any offenders, the nuisance continues, and the police seem powerless to prevent it.

The Cantonment Committee suggest that the two small tanks on the golf links should be filled up and the completion of the drains in the 75th Carnatic Lines carried out at once. The culvert should be closed in by gratings so as to prevent the access of natives and a special conservancy police might be appointed to prevent this nuisance in future, and a policeman appointed to see that the Mazapet market is kept in a sanitary condition. The growth of paddy should be restricted to a certain distance from the limits of the town, cantonment and dwelling-houses generally. The bazaar in the South Infantry lines should be abolished or the families of the bazaar people compelled to dwell outside of the lines. Shops should be occupied during the day only, but the abolition of the bazaar would best meet the evil. The dwellings and latrines in the married quarters should be repaired immediately, and if it is not possible to meet the expenditure from regimental funds, then a special grant might be asked for; and pipe water should be laid on to the Military hospital.

The Principal Medical Officer of the Bangalore and Southern Brigades remarks that the Officer Commanding at Trichinopoly reports that no funds are available to carry out the work of filling in the tanks referred to above; that an estimate for Rs. 7,280 has been sent up for sanction to complete the drains in the 75th Carnatic Infantry lines; and that the Municipality has been addressed in regard to the fouling of the culverts. The Mazapet market is under the supervision of the Civil authorities, and the local Municipality will be addressed in regard to the cultivation of paddy at some distance from the cantonments. The insanitary bazaar in the South Infantry lines is the private property of the occupants, and no funds are available to buy them out. Repairs to the dwellings in the married quarters will be carried out regimentally; and the local Municipality was addressed in regard to a piped water supply to the Military hospital, but the work could not be carried out for want of funds.

The General Officer Commanding the Southern Brigade states that there has been neglect in the past in permitting over-crowding; and that drainage and clearings are especially necessary as the station is a dirty place.

TABLE XXXI.

INFLUENZA by months, stations, groups, and armies.

TABLE XXXII.

CHOLERA by months, stations, groups, and armies.

STATIONS * AND GROUPS.	ADMISSIONS FROM INFLUENZA IN EACH MONTH.													ADMISSIONS FROM CHOLERA IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Manipur . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	2
GROUP III.—ASSAM . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	2
Alipore . . . . .	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
GROUP IV.—BENGAL AND ORISSA. }	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
B																										
Allahabad . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
Fyzabad . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1
Cawnpore . . . . .	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	14	..	..	..	..	..	..	..	..	14
GROUP V.—GANGETIC PLAIN AND NAGPUR. }	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	15	1	..	..	..	..	..	..	..	16
A																										
Bareilly . . . . .	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Dehra Dun . . . . .	..	1	4	5	1	..	..	..	..	..	..	..	11	..	..	..	..	..	..	2	..	..	..	..	..	2
Ambala . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1
B																										
Ferozepore	9	2	4	2	..	..	..	..	..	..	..	..	17	..	..	..	..	..	1	..	..	..	..	..	..	1
Lahore Cantonment . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	..	..	..	..	3
Sialkot . . . . .	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	1
Jhelum	2	1	1	2	..	..	..	..	..	..	..	..	6	..	..	..	..	..	..	..	..	2	..	..	..	2
Rawalpindi . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	..	..	..	2	..	..	..	6
Attock . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1
GROUP VI.—UPPER SUB-HIMALAYA. }	11	5	9	9	1	..	1	..	..	..	..	..	36	..	..	..	..	2	2	3	3	1	5	1	..	17
A																										
Mardan	8	1	..	..	..	..	..	..	..	..	..	..	9	..	..	..	..	..	1	..	..	..	..	..	..	1
Nowshera	18	8	1	2	..	..	..	..	..	..	1	..	30	..	..	..	..	3	3	2	2	..	..	1	..	11
Peshawar	9	..	2	..	..	..	..	..	..	..	..	..	11	..	..	..	..	5	..	..	..	..	1	..	..	6
Kohat	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	1
Edwardesabad	1	..	1	..	..	1	2	..	..	..	..	1	6	..	..	..	..	5	1	..	..	..	..	..	..	6
Dera Ismail Khan . . . . .	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
C																										
Hyderabad . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	2
GROUP VII.—NORTH-WESTERN FRONTIER, INDUS VALLEY, AND NORTH-WESTERN RAJ-PUTANA. }	37	10	4	2	..	1	2	..	..	..	1	1	58	..	..	..	..	13	7	3	2	..	1	1	..	27
B																										
Erinpura	3	1	..	..	..	..	..	..	..	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..
Nowgong	8	..	..	..	..	..	..	..	..	..	..	..	8	..	..	..	..	..	..	..	..	..	..	..	..	..
GROUP VIII.—SOUTH-EASTERN RAJPUTANA, CENTRAL INDIA, AND GUJARAT. }	11	1	..	..	..	..	..	..	..	..	..	..	12	..	..	..	..	..	..	..	..	..	..	..	..	..
A																										
Saugor . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
Jubbulpore	2	10	7	1	..	..	..	..	..	..	..	..	20	..	..	..	..	..	..	..	..	..	..	..	..	..
B																										
Bolarum . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1
Secunderabad	23	17	14	6	5	3	2	..	8	1	1	..	80	..	..	..	..	1	18	11	1	1	..	..	..	32
Kirkee . . . . .	..	..	..	..	..	..	..	..	..	28	11	24	63	..	..	..	..	..	..	..	..	..	..	..	..	..
GROUP IX.—DECCAN	25	27	21	7	5	3	2	..	8	29	12	24	163	..	..	..	..	..	2	18	12	1	1	..	..	34

* Stations where neither Influenza nor Cholera occurred are not shown in these tables. For the annual ratios, see Table XXVIII.

NATIVE TROOPS, 1908.

TABLE XXXI—concluded.

INFLUENZA by months, stations, groups, and armies.

TABLE XXXII—concluded.

CHOLERA by months, stations, groups, and armies.

STATIONS, GROUPS, AND ARMIES.	ADMISSIONS FROM INFLUENZA IN EACH MONTH.													ADMISSIONS FROM CHOLERA IN EACH MONTH.													
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL	
Santa Cruz . . . . .	...	1	1	...	...	...	...	...	1	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP X.—WESTERN COAST	...	1	1	...	...	...	...	...	1	...	...	...	3	...	1	...	...	...	...	...	...	...	...	...	...	...
A																											
Bellary . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	3	1	...	...	...	6
Bangalore . . . . .	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
B																											
Trichinopoly . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	4
Madras . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
GROUP XI.—SOUTHERN INDIA. }	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	1	4	1	...	...	4	11
Shillong . . . . .	...	...	1	14	...	...	...	...	...	...	...	...	15	...	...	...	1	...	...	...	...	...	...	...	...	1
Gangtok . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
Lansdowne . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	2	2	...	...	...	...	...	4
Dharmasala . . . . .	...	...	...	5	...	...	...	...	...	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...
Bakloh	7	14	7	...	...	...	...	...	18	1	...	...	47	...	...	...	...	...	...	...	...	...	...	...	...	...
Abbottabad . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	27	4	1	...	...	...	...	36
Fort Sandeman . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Loralai	5	6	8	3	2	...	...	...	...	...	...	...	24	...	...	...	...	...	...	...	...	...	...	...	...	...
Quetta	11	5	4	...	...	1	...	...	...	...	...	...	21	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP XII.—HILL STATIONS. }	23	25	20	22	2	1	...	...	18	1	...	1	113	...	...	...	1	...	4	29	7	1	...	1	...	43
Marching, India . . . . .	...	...	2	...	1	...	...	...	...	...	1	1	5	...	...	...	...	4	1	3	...	1	2	1	...	12
EXTRA INDIA.																											
(b) Not in the Indian Command:—																											
Lutai	3	1	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...
Shan-hai-Kwan }	3	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
North China. }																											
Hong-Kong (South China) .	...	...	7	8	7	5	7	13	18	5	5	6	81	...	...	...	...	...	...	...	...	...	...	...	...	...
Mohmand F. Force . . . . .	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	9	3	...	...	...	...	...	...	12
ARMY OF INDIA .	113	70	66	48	17	10	12	14	45	35	19	33	482	...	...	...	1	43	22	58	28	5	9	4	4	174
NORTHERN ARMY	55	29	22	30	1	1	3	1	18	1	1	2	164	...	...	...	1	30	13	36	12	2	6	2	...	102
SOUTHERN „	52	40	35	10	7	4	2	...	9	29	12	24	224	...	...	...	...	...	5	19	16	2	1	1	4	48

NATIVE TROOPS, 1908.

TABLE XXXIII.

ENTERIC FEVER by months, stations, groups, and armies.

TABLE XXXIV.

PYREXIA OF UNCERTAIN ORIGIN by months, stations, groups, and armies.

STATIONS* AND GROUPS.	ADMISSIONS FROM ENTERIC FEVER IN EACH MONTH.												ADMISSIONS FROM PYREXIA OF UNCERTAIN ORIGIN IN EACH MONTH.													
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Port Blair	2	..	..	..	..	3	1	..	1	9
Rangoon	9	26	17	3	12	6	11	13	8	14	13	4	136
GROUP I.—BURMA COAST AND BAY ISLANDS	9	26	17	5	12	8	11	13	11	15	13	5	145
Meiktila	1	..	..	..	..	..	1	..	..	2	..	..	..	..	..	..	..	..	..	..	4	4	
Fort Dufferin	1	..	..	..	..	..	..	..	..	1	..	..	2	..	..	..	1	..	2	2	1	..	..	..	6	
Bhamo	2	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..
GROUP II.—BURMA INLAND	1	..	2	1	..	..	..	..	..	1	1	..	6	..	..	..	1	..	2	2	1	..	..	4	10	
Manipur	5	4	9	
GROUP III.—ASSAM	5	4	9	
Fort William	1	..	..	1	2	1	4	6	2	..	..	12	7	4	6	2	46
Alipore	1	..	1	..	..	..	..	..	..	..	3	..	..	..	..	4
Barrackpore	1	..	..	..	..	..	..	..	..	..	..	1
Buxa	5	1	..	..	..	..	..	..	..	6
GROUP IV.—BENGAL AND ORISSA	1	1	..	2	2	2	4	12	3	..	..	15	7	4	6	2	57
B
Allahabad	1	1	..	..	6	1	..	..	..	..	9
Fyzabad	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Lucknow	6	11	6	2	3	2	..	3	1	..	34
Cawnpore	1	..	1	..	..	..	..	..	..	..	..	2
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR.	1	..	..	..	..	..	..	..	..	1	..	1	7	13	6	2	9	3	..	3	1	..	45
A	2	..	2	..	..	..	..	..	..	4
Bareilly	4	2	8	..	6	5	4	1	2	39
Rurki	2	1	1	30	28	44	6	12	..	..	..	124
Dehra Dun	8	3	2	2	5	10	7	14	4	3	2	11	71	..	..	..	..	..	..	..	..	..	..	..	..	16
Meerut	1	1	2	1	..	1	3	1	..	..	..	..	10
Ambala	1	..	..	1	1	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..
B	1	..	1	..	..	..	..	2	..	..	1	1	..	..	..	..	..	..	..	..	2
Jullundur	11
Ferozepore	1	1	1	1	..	..	..	3	2	..	..	9	..	..	2	1	1	6	..	..	..	1	..	..	73
Lahore Cantonment	1	..	..	..	..	..	..	..	..	..	1	1	1	2	5	1	9	10	17	26	..	..	1	26
Sialkot	1	6	..	2	3	..	..	..	12	..	..	..	..	4	7	5	5	2	1	2	..	3
Jhelum	1	2	2	1	1	1	1	..	..	9	..	..	..	..	1	1	..	1	..	..	..	..	173
Rawalpindi	2	..	1	1	..	4	1	2	9	5	8	13	13	17	23	39	27	16	173
GROUP VI.—UPPER HIMALAYA. SUB-	8	4	4	4	10	19	8	21	12	7	3	11	111	3	6	17	20	43	81	90	54	71	46	29	21	481
A	1	..	..	..	..	1	..	..	..	..	..	8	..	..	..	..	..	..	8
Mardan	3	2	3	..	..	..	..	..	8	..	..	..	1	10	7	7	1	2	1	..	..	29
Nowshera	10	1	1	2	..	1	..	..	..	..	15	..	..	..	..	6	7	..	..	..	..	1	..	14
Peshawar	1	..	..	..	..	..	..	1
Fort Jamrud
Kohat	1	1	..	2	3	1	1	3	3	15	..	..	..	3	..	3	3	4	..	..	..	..	13
Edwardesabad
Edwardsabad	2	1	4	2	1	..	6	1	..	1	..	18	1	..	..	1	2	2	..	1	..	1	2	1	11
Dera Ismail Khan	1	1	1	4	1	1	..	..	..	..	..	9	..	4	1	4	14	5	..	2	1	1	..	..	32
Multan	1	1	1	..	1	3	..	..	..	..	7	1	..	..	2	4	9	..	1	..	..	1	..	18
B	2	2	..	..	..	..	..	..	..	..	..	..	4
C	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Jacobabad	1	..	..	..	..	..	..	..
Hyderabad	1	..	..	1	3	..	..	5
Karachi	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1	1	..	1	..	..	..	4
GROUP VII.—NORTH-WESTERN FRONTIER, INDUS VALLEY, AND NORTH-WESTERN RAJPUTANA.	1	3	13	8	13	6	7	14	2	1	4	3	75	4	6	1	9	39	33	19	8	9	6	4	1	139
A	1	1	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	1	..	..	..	..	..	..	1
Rajkot	1
Deesa	1	..	..	..	..	1	..	1
Baroda													

* Stations where neither Enteric Fever nor Pyrexia of uncertain origin occurred are not shown in these tables. For the annual ratios, see Table XXVIII.

NATIVE TROOPS, 1908.

TABLE XXXIII—concluded.

ENTERIC FEVER by months, stations, groups, and armies.

STATIONS, GROUPS, AND ARMIES.	ADMISSIONS FROM ENTERIC FEVER IN EACH MONTH.												TOTAL.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
A													
Saugor . . . . .	...	...	...	1	...	...	...	...	...	3	...	...	4
Jubbulpore	1	...	...	1	...	...	...	...	...	1	...	1	4
Kampti . . . . .	...	...	...	...	...	...	1	...	...	...	...	...	1
B													
Aurangabad . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Ahmednagar . . . . .	...	...	...	...	...	...	1	...	1	...	...	...	2
Bolarum . . . . .	...	...	...	...	...	...	1	...	5	...	...	...	6
Secunderabad	1	...	2	...	1	...	...	4	1	1	1	...	11
Belgaum . . . . .	...	...	...	...	...	...	...	1	...	...	...	...	1
Poona	1	...	2	...	...	...	2	...	5	1	1	...	12
Kirkee . . . . .	...	...	...	...	1	...	...	...	1	...	...	...	2
GROUP IX.—DECCAN	3	...	4	2	2	...	5	5	13	6	2	1	43
Bombay . . . . .	...	...	...	...	...	1	...	...	...	2	...	...	3
Santa Cruz . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Cannanore . . . . .	...	...	...	...	...	1	...	...	...	...	...	...	1
GROUP X.—WESTERN COAST	...	...	...	...	...	2	...	...	...	2	...	...	4
A													
Bellary . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Bangalore . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
B													
St. Thomas' Mount . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	1
Madras . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	1
GROUP XI.—SOUTHERN INDIA	...	1	...	...	...	...	...	...	1	...	...	...	2
Maymyo . . . . .	...	1	...	3	...	...	...	...	1	1	...	...	6
Kohima . . . . .	...	...	...	...	...	1	...	...	...	...	...	...	1
Shillong . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Gangtok . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Almora . . . . .	...	...	...	...	2	1	2	1	1	...	...	...	7
Lansdowne . . . . .	...	...	...	...	2	1	5	2	...	...	...	...	10
Simla . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Dharmasala . . . . .	...	...	...	...	2	1	...	...	...	...	...	...	3
Khyragali . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Baragali . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Kila Drosh . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	1
Malakand . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Dargai	1	...	...	...	...	...	...	...	...	...	...	...	1
Chakdara . . . . .	...	...	...	...	1	...	...	...	...	...	...	...	1
Abbotabad	1	...	1	1	5	6	7	8	2	9	...	...	40
Fort Sandeman . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	1
Quetta . . . . .	...	...	1	...	...	1	...	1	4	4	2	2	15
Shelabagh . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Chaman . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	1
Ootacamund . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP XII.—HILL STATIONS	2	1	2	4	8	13	11	15	13	14	2	2	87
Marching India	...	...	...	...	...	...	1	...	...	...	...	1	2
EXTRA INDIA.													
(a) In the Indian Command :—													
Aden . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Khormaksar . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
(b) Not in the Indian Command :—													
Singapore . . . . .	...	...	...	...	...	...	1	...	...	1	...	...	2
Tien-tsin . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Lutai . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Shan-hai-Kwan } North China	...	...	...	...	...	...	...	...	...	...	...	...	...
Hong Kong (South China) .	...	...	...	...	...	...	...	...	...	...	1	...	1
ARMY OF INDIA	15	10	26	20	34	41	33	58	45	30	18	20	350
NORTHERN ARMY	10	7	18	14	30	37	26	49	20	18	8	14	251
SOUTHERN ARMY	5	3	8	6	4	4	5	9	25	12	9	4	94

TABLE XXXIV—concluded.

PYREXIA OF UNCERTAIN ORIGIN by months, stations, groups, and armies.

STATIONS, GROUPS, AND ARMIES.	ADMISSIONS FROM PYREXIA OF UNCERTAIN ORIGIN IN EACH MONTH.												TOTAL.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
A													
Saugor . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Jubbulpore	5	4	2	2	...	3	5	3	5	...	...	...	29
Kampti	1	...	7	3	2	3	1	...	...	...	...	...	17
B													
Aurangabad	2	2	3	2	3	...	1	3	5	6	1	1	29
Ahmednagar . . . . .	...	...	1	...	3	1	2	1	2	6	3	2	21
Bolarum	7	2	2	...	4	6	5	6	5	8	4	2	51
Secunderabad . . . . .	...	2	2	4	5	2	8	5	1	7	2	8	46
Belgaum . . . . .	...	2	...	...	...	...	...	...	...	...	...	...	...
Poona	8	8	11	9	9	5	10	10	5	13	14	4	106
Kirkee	8	9	9	9	9	18	18	7	4	3	3	10	107
GROUP IX.—DECCAN	31	29	37	29	35	38	50	35	27	43	27	27	408
Bombay . . . . .	...	1	...	...	...	...	...	...	1	...	...	...	2
Santa Cruz . . . . .	...	...	...	...	...	1	1	...	...	...	...	...	2
Cannanore . . . . .	...	...	...	1	...	2	1	...	9	2	1	2	18
GROUP X.—WESTERN COAST	...	1	...	1	...	3	2	...	10	2	1	2	22
A													
Bellary . . . . .	...	...	6	1	...	...	...	...	...	3	...	...	10
Bangalore	2	2	6	9	12	13	8	4	1	1	...	1	59
B													
St. Thomas' Mount	1	1	...	...	1	2	2	...	...	5	...	1	13
Madras . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP XI.—SOUTHERN INDIA	3	3	12	10	13	15	10	4	1	9	...	2	82
Maymyo . . . . .	...	1	...	...	...	...	...	...	3	3	1	...	10
Kohima . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Shillong . . . . .	...	...	1	...	...	...	...	...	...	...	...	...	1
Gangtok . . . . .	...	...	2	1	...	...	...	...	...	...	...	...	3
Almora . . . . .	...	...	...	3	11	7	...	3	...	...	...	6	30
Lansdowne . . . . .	...	...	...	2	...	...	...	1	...	...	...	...	3
Simla . . . . .	...	...	...	...	...	1	...	...	...	...	...	...	1
Dharmasala . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Khyragali . . . . .	...	...	...	...	...	...	...	3	2	...	...	...	5
Baragali . . . . .	...	...	...	...	...	...	...	...	1	6	...	...	8
Kila Drosh . . . . .	...	...	...	...	...	...	...	3	...	...	...	...	3
Malakand . . . . .	...	...	...	...	...	1	...	...	...	...	...	...	1
Dargai . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	1
Chakdara . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	1
Abbotabad . . . . .	...	...	...	...	...	...	...	...	38	58	51	24	177
Fort Sandeman . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Quetta . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Shelabagh	8	2	10	9	13	13	5	16	44	31	22	1	174
Chaman . . . . .	...	...	...	...	...	...	...	...	...	...	3	...	3
Ootacamund . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	21
GROUP XII.—HILL STATIONS	9	4	13	15	63	82	59	55	61	42	30	10	443
Marching India	8	6	...	...	...	3	6	1	...	...	...	...	24
EXTRA INDIA.													
(a) In the Indian Command :—													
Aden	6	3	1	6	14	29	7	4	4	3	2	8	87
Khormaksar . . . . .	...	...	...	...	...	1	1	...	...	...	...	1	3
(b) Not in the Indian Command :—													
Singapore . . . . .	...	4	3	...	...	...	...	...	...	...	1	...	8
Tien-tsin . . . . .	...	...	...	...	...	...	...	8	1	2	1	1	13
Lutai . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	1
Shan-hai-Kwan } North China	...	...	1	...	...	...	...	...	...	...	...	...	1
Hong Kong (South China) .	...	...	...	...	14	4	2	6	10	4	3	4	47
ARMY OF INDIA	76	92	113	123	245	305	275	213	217	180	124	93	2,056
NORTHERN ARMY	7	14	32	59	140	183	168	111	96	62	45	35	952
SOUTHERN ARMY	61	67	77	64	91	115	99	87	110	112	74	53	1,010

NATIVE TROOPS, 1908.

TABLE XXXV.

MALARIA by months, stations, groups, and armies.

TABLE XXXVI.

PNEUMONIA by months, stations, groups, and armies.

STATIONS* AND GROUPS.	ADMISSIONS FROM MALARIA IN EACH MONTH.													ADMISSIONS FROM PNEUMONIA IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Port Blair	1	..	3	7	11	26	6	12	4	2	4	1	77	..	..	..	..	..	..	..	..	..	..	..	..	..
Rangoon	10	6	11	9	15	9	10	3	2	8	4	4	91	..	..	..	..	..	..	..	..	1	..	2	..	3
GROUP I.—BURMA } COAST AND BAY } ISLANDS.	11	6	14	16	26	35	16	15	6	10	8	5	168	..	..	..	..	..	..	..	..	1	..	2	..	3
Meiktila . . . .	..	7	16	3	2	9	19	7	2	11	5	8	89	..	2	1	..	1	..	..	..	..	1	..	..	5
Fort Dufferin . . .	27	27	17	11	25	25	16	11	13	40	23	27	263	..	..	3	2	..	..	..	..	..	..	2	..	7
Bhamo . . . .	..	1	6	..	12	15	36	48	40	76	36	28	298	..	..	1	..	..	..	..	1	..	1	3	..	6
GROUP II.—BURMA } INLAND.	27	35	39	14	40	49	71	66	55	127	64	63	650	..	2	5	2	1	..	..	1	..	2	5	..	18
Manipur	9	9	10	18	11	30	27	15	15	24	17	6	191	..	..	2	..	1	..	..	..	..	4	..	7	
Sadiya . . . .	..	..	..	1	1	2	4	6	3	4	3	..	24	..	..	..	..	..	..	..	..	..	..	..	..	..
Dibrugarh	5	2	2	3	3	11	30	15	26	57	25	18	197	..	..	..	..	..	..	..	..	1	..	..	..	1
GROUP III.—ASSAM	14	11	12	22	15	43	61	36	44	85	45	24	412	..	..	2	..	1	..	..	..	..	1	4	..	8
Fort William . . .	1	1	2	..	3	19	13	6	2	12	15	10	84	1	1	..	1	..	..	..	..	1	..	1	4	9
Alipore	55	2	12	8	1	5	3	11	25	17	14	12	165	5	..	..	..	..	1	..	..	1	..	1	..	8
Barrackpore . . .	15	2	5	1	4	2	41	44	27	42	58	11	252	1	..	..	..	1	..	..	..	1	..	..	..	3
Buxa	4	1	1	..	6	4	4	2	1	1	4	4	32	..	..	..	..	..	..	..	..	..	2	..	..	2
GROUP IV.—BEN- } GAL AND ORISSA }	75	6	20	9	14	30	61	63	55	72	91	37	533	7	1	..	1	1	..	1	..	2	1	3	5	22
B	2	..	..	4	2	4	1	24	86	64	14	4	205	..	..	..	2	..	..	..	2	..	1	2	8	15
Dinapore	1	..	1	1	3	3	3	6	20	20	..	13	71	..	..	..	..	2	..	..	..	..	1	..	..	3
Benares	6	7	3	5	7	6	5	12	55	142	83	12	343	1	1	..	..	1	..	..	..	1	..	1	..	5
Allahabad	6	5	..	1	6	4	2	7	17	112	58	32	250	2	..	1	2	2	..	..	..	1	1	2	3	14
Fyzabad	8	1	1	5	..	6	8	8	41	78	72	31	259	9	7	4	2	1	..	..	1	1	..	2	4	31
Lucknow	1	..	3	3	3	1	2	28	69	106	67	16	299	2	1	..	2	..	..	..	..	..	1	2	6	14
Cawnpore . . . .	..	3	3	5	1	2	1	2	19	34	7	2	79	..	..	..	..	..	..	..	..	1	..	..	..	1
Fatehgarh	24	16	11	24	22	26	22	87	307	556	301	110	1,506	14	9	5	8	6	..	..	3	3	4	9	22	83
GROUP V.—GAN- } GETIC PLAIN } AND CHUTIA } NAGPUR.	9	1	..	4	7	4	10	35	87	154	22	18	351	7	..	..	..	..	..	..	..	..	..	1	8	
Bareilly	3	..	..	..	..	..	..	..	62	21	1	..	87	3	..	1	..	..	..	..	..	..	1	1	1	7
Rurki	96	25	27	47	34	51	48	94	144	470	439	334	1,809	6	4	4	1	..	..	1	..	..	1	3	15	35
Dehra Dun	6	7	8	6	11	5	16	65	147	177	139	34	621	6	4	6	1	..	1	3	1	..	1	2	1	26
Meerut	30	20	5	11	11	11	13	102	189	145	105	25	667	3	1	1	2	..	..	..	..	1	..	8	3	19
Ambala	6	..	..	1	3	2	5	13	27	45	16	11	129	6	3	..	1	..	..	..	..	..	1	2	..	13
A	5	5	1	7	13	17	9	20	53	140	207	118	595	4	2	2	1	1	2	..	..	..	3	3	7	25
Jullundur	11	8	4	4	32	13	12	22	359	201	83	46	800	6	2	8	1	2	1	..	..	..	..	1	5	26
Ferozepore	1	1	1	4	6	..	2	2	59	89	25	18	208	10	2	1	1	..	1	..	..	..	..	3	6	24
Lahore Cantonment	1	..	1	..	1	6	..	4	21	16	2	..	52	2	..	1	..	1	..	..	..	..	..	1	5	5
Amritsar	11	11	22	14	7	36	6	17	63	104	67	36	394	16	4	5	1	1	..	1	2	2	4	8	7	51
Sialkot	23	14	10	9	9	40	18	59	334	178	221	245	1,160	12	2	6	..	..	2	1	..	..	6	7	36	36
Jhelum	8	2	4	3	8	16	11	5	39	72	60	21	249	9	2	2	1	..	..	1	..	2	2	7	26	26
Rawalpindi	2	..	1	1	2	..	1	4	5	3	6	10	40	..	..	..	..	..	..	..	..	..	..	1	..	1
Attock	212	94	84	111	144	201	151	442	1,589	1,820	1,398	916	7,162	90	26	37	10	5	7	6	4	3	12	38	64	302
GROUP VI.—UPPER } SUB-HIMALAYA.	212	94	84	111	144	201	151	442	1,589	1,820	1,398	916	7,162	90	26	37	10	5	7	6	4	3	12	38	64	302

Stations where neither Malaria nor Pneumonia occurred are not shown in these tables. For the annual ratios, see Table XXXIII

NATIVE TROOPS, 1908.

TABLE XXXV—continued.

MALARIA by months, stations, groups, and armies.

TABLE XXXVI—continued.

PNEUMONIA by months, stations, groups and armies.

STATIONS AND GROUPS.	ADMISSIONS FROM MALARIA IN EACH MONTH.													ADMISSIONS FROM PNEUMONIA IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
A																										
Mardan	11	4	1	4	...	1	2	7	56	49	42	11	188	10	3	3	...	1	...	...	...	...	2	6	6	31
Nowshera	44	18	50	31	65	59	38	39	133	206	150	79	912	19	3	3	1	4	2	1	...	1	1	3	6	44
Peshawar	43	19	36	23	25	68	35	66	263	437	387	168	1,570	12	8	5	2	...	7	1	...	2	...	11	7	55
Fort Jamrud	1	...	...	...	...	...	...	2	7	6	5	3	24	...	...	...	...	...	...	...	...	...	...	...	...	...
Kohat	69	34	31	57	75	85	50	206	300	207	157	120	1,391	20	14	2	1	2	...	1	3	4	4	5	2	58
Thal . . . . .	...	2	1	1	2	4	19	9	14	20	35	12	119	...	...	...	...	...	...	...	...	...	...	2	2	...
Edwardesabad	87	41	27	11	37	40	61	22	44	187	234	203	994	11	2	4	3	1	...	...	1	2	3	4	4	35
Dera Ismail Khan	129	71	36	41	110	89	48	92	345	665	759	366	2,751	32	16	8	2	1	3	1	1	...	1	6	14	85
Jatta	5	1	...	...	1	3	3	1	4	10	16	9	53	1	...	...	...	...	...	...	...	...	...	...	...	1
Drazinda	2	2	2	1	6	10	...	11	8	10	13	6	71	...	...	...	...	...	...	...	...	...	1	...	...	1
Fort Zam . . . . .	...	1	...	...	1	10	1	2	2	5	...	4	26	...	...	...	...	...	...	...	...	...	...	...	...	...
Multan	4	3	...	4	8	8	3	18	83	301	143	95	670	15	3	5	1	1	...	...	...	...	...	1	1	27
B																										
Jandola	3	6	2	4	6	30	12	29	15	33	39	8	187	...	1	...	...	...	...	...	...	...	...	...	...	1
Sibi . . . . .	...	...	...	3	3	...	1	1	2	...	1	5	16	1	...	...	...	1	...	...	...	1	...	...	...	3
C																										
Jacobabad	21	12	8	3	7	...	2	2	10	21	101	34	221	2	2	5	...	1	1	...	...	...	1	...	6	18
Hyderabad	7	4	2	3	12	13	3	4	4	18	82	43	195	3	1	...	...	...	...	...	...	...	2	...	3	9
Karachi	8	10	4	...	3	1	...	26	39	85	58	50	264	2	1	...	...	...	...	1	...	...	...	...	3	7
GROUP VII.— NORTH-WEST- ERN FRONTIER, INDUS VALLEY, AND NORTH- WESTERN RAJ- PUTANA.	434	228	200	186	361	421	278	537	1,329	2,260	2,222	1,196	9,652	128	54	35	10	12	13	5	5	10	15	36	54	377
A																										
Bhuj	4	2	3	3	1	2	3	3	5	5	5	2	38	...	...	...	...	...	...	...	...	...	...	...	...	...
Rajkot	14	1	1	...	1	...	5	19	4	11	3	...	59	...	...	...	...	...	...	...	...	...	...	...	...	...
Deesa	13	14	2	5	6	6	4	3	4	10	24	5	96	...	1	1	1	...	...	1	2	...	2	1	9	
Ahmedabad	12	8	12	5	11	6	13	13	22	33	35	16	86	1	3	1	...	1	...	...	...	...	1	1	1	9
Baroda	31	31	15	2	2	4	5	15	41	127	124	50	47	1	4	...	1	...	...	...	1	1	...	...	5	13
B																										
Sirdarpore . . . . .	...	2	1	1	...	...	...	...	...	...	...	...	4	...	...	1	...	...	...	...	...	...	...	...	...	1
Kherwara	1	...	...	...	...	...	...	...	...	...	...	...	1	4	4	2	...	...	...	...	...	...	...	...	...	10
Kotra	1	1	2	...	...	...	...	...	...	...	...	...	4	...	3	...	...	...	...	...	...	...	...	...	...	3
Todgarh . . . . .	...	...	...	2	...	1	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Erinpura	4	2	1	1	3	6	5	11	16	18	9	2	78	2	...	3	...	...	...	...	...	...	2	2	9	
Neemuch . . . . .	...	1	...	...	...	...	1	...	2	7	5	2	18	2	...	...	...	...	...	...	...	...	1	1	4	
Deoli	2	...	...	2	2	...	...	1	3	4	1	1	16	4	1	...	...	...	...	1	...	...	...	1	7	
Beawar . . . . .	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	1
Nasirabad	7	2	8	1	3	1	5	14	20	106	104	32	303	1	...	...	...	...	...	...	...	...	...	2	3	
Ajmir . . . . .	...	...	...	1	3	...	...	6	10	29	6	3	58	...	4	4	2	...	1	...	...	...	1	...	12	
Jaipur . . . . .	...	1	...	...	...	...	...	...	2	8	2	1	14	...	1	...	...	...	...	...	...	...	...	...	...	1
Agra	6	2	...	6	6	11	13	17	17	5	14	14	111	2	3	3	1	1	...	...	...	...	2	2	14	
Jhansi	39	38	24	21	33	26	37	79	304	379	235	103	1,318	7	...	3	...	...	...	3	1	...	1	2	18	
Nowgong	5	1	...	4	1	2	5	14	43	46	33	3	157	1	...	...	1	...	...	...	...	...	2	...	11	
Goona	1	...	1	...	1	...	1	...	1	22	4	3	34	...	1	...	...	...	...	...	...	...	...	1	2	
Agar . . . . .	...	...	1	...	...	2	...	1	1	13	6	1	25	...	...	1	...	...	...	...	...	...	...	...	...	1
Sehore	9	...	5	10	16	2	5	6	10	39	21	26	140	...	2	2	...	1	2	...	...	...	3	1	11	
Indore	6	2	3	2	1	...	1	...	1	2	...	...	18	1	...	3	...	...	...	...	...	...	...	...	4	
Mhow	21	18	28	15	11	16	16	12	43	81	45	54	360	3	2	...	...	...	...	1	...	...	...	...	6	
GROUP VIII.— SOUTH-EASTERN RAJPUTANA, CENTRAL INDIA, AND GUJARAT.	176	126	107	82	101	85	119	214	549	945	676	318	3,498	29	29	24	7	3	3	5	5	1	8	11	24	149

TABLE XXXV—continued.

MALARIA by months, stations, groups,
and armies.

TABLE XXXV—continued.

PNEUMONIA by months, stations,
groups and armies.

STATIONS AND GROUPS.	ADMISSIONS FROM MALARIA IN EACH MONTH.													ADMISSIONS FROM PNEUMONIA IN EACH MONTH.													
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	
A																											
Saugor	32	18	4	17	16	4	8	10	34	94	94	94	425	2	1	3	1	1	8
Sutna	1	1	3	5	1	1	12	1	1
Jubbulpore	11	...	2	3	5	7	15	19	77	157	75	38	409	2	3	1	1	...	...	1	...	...	1	...	5	14
Kampti	6	...	11	6	4	3	4	1	14	30	19	5	103	...	...	...	...	...	...	1	...	...	...	...	2	3
Sitabaldi	2	1	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
B																											
Aurangabad	8	11	8	10	6	1	8	6	22	56	55	19	210	...	1	1	1	...	...	...	...	...	1	...	...	4
Ahmednagar . . . .	...	...	...	1	4	2	5	4	15	27	5	...	63	...	1	...	...	1	2	1	2	2	1	1	1	12
Bolarum	7	6	4	1	1	4	19	22	28	24	10	12	138	2	...	...	...	...	...	...	...	1	...	1	2	6
Secunderabad	8	3	2	3	1	7	8	9	30	10	28	28	137	4	2	2	...	1	...	...	...	...	2	3	7	21
Belgaum	3	1	16	16	21	18	16	10	7	15	14	9	146	2	1	1	...	3	...	4	1	1	1	2	2	18	
Satara . . . . .	...	...	...	2	...	...	1	1	1	1	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...
Poona . . . . .	...	1	...	3	3	...	13	6	8	11	4	5	54	1	...	1	1	...	...	1	2	3	...	4	13	
Kirkee	3	2	4	4	2	12	25	16	10	60	33	8	179	1	2	3	2	1	1	...	...	2	1	...	3	16
GROUP IX—DECCAN																											
	80	43	52	66	63	58	122	105	249	490	338	219	1,885	1	11	9	5	6	3	6	8	9	11	7	26	116	
BOMBAY																											
Bombay	29	17	9	9	6	16	15	23	41	84	45	36	330	2	4	2	...	...	...	...	...	...	...	...	...	8
Santa Cruz	14	9	3	3	5	4	1	5	10	43	16	55	168	...	...	...	...	...	...	1	...	...	...	1	...	2
Cannanore . . . . .	...	...	8	1	1	1	...	...	...	1	1	...	13	...	...	...	...	...	...	...	...	...	...	...	...	...
Trivandrum . . . . .	...	...	...	...	1	...	...	...	...	...	...	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP X.—WEST-ERN COAST																											
	43	26	20	13	13	21	16	28	51	128	62	92	513	2	4	2	...	...	...	1	...	...	...	1	...	10
BELLARY																											
Bellary . . . . .	...	...	3	...	...	1	...	...	...	2	...	2	8	...	...	...	...	...	3	1	...	...	...	...	...	4
Bangalore	62	6	12	23	42	82	77	46	67	128	127	30	692	2	1	2	1	3	1	4	3	2	1	5	6	31	
TRICHINOPOLY																											
Trichinopoly . . . .	...	...	...	...	1	1	...	...	...	1	6	1	10	...	...	...	...	...	...	...	...	...	...	...	...	...
St. Thomas' Mount . .	...	...	...	...	...	...	1	...	...	1	2	...	4	...	...	...	...	...	...	...	...	...	...	1	...	1
Madras . . . . .	...	2	...	...	...	2	...	...	...	...	1	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP XI.—SOUTHERN INDIA																											
	62	8	5	23	43	86	78	46	67	132	136	33	719	2	1	2	1	3	4	5	3	2	1	5	7	36	
MAYMYO																											
Maymyo	6	3	17	6	6	8	26	8	8	26	23	11	148	2	...	2	...	...	...	1	...	...	...	...	...	5
Kohima . . . . .	...	1	...	...	...	5	4	10	7	6	2	1	36	...	...	...	...	...	...	...	...	...	...	...	...	...
Shillong	30	21	4	7	17	6	9	13	12	14	19	29	181	...	...	1	1	...	...	...	...	...	...	...	...	2
Gangtok	1	...	...	...	1	...	3	2	4	2	3	...	16	...	...	...	...	...	...	...	...	...	...	...	...	...
Chumbi (including Pharijong)	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Gyantse . . . . .	...	...	...	...	...	...	...	5	3	...	...	...	8	...	2	1	...	...	...	...	...	1	...	...	...	4
Almora	5	4	3	8	6	6	17	15	35	22	9	1	131	...	...	1	1	2	...	2	...	...	...	...	...	6
Naini Tal	1	...	...	2	4	...	...	1	3	6	...	...	17	...	...	...	...	...	1	1	...	...	...	...	...	2
Lansdowne	13	19	19	24	24	30	33	35	48	53	42	47	337	5	2	4	6	3	2	...	1	1	3	4	18	49	
Simla . . . . .	...	...	...	...	4	3	2	3	3	193	80	21	309	...	...	...	...	...	...	...	...	...	...	...	...	1
Jutogh . . . . .	...	...	...	6	...	1	1	2	7	...	1	...	23	...	...	...	...	...	...	...	...	...	1	1	...	2
Dharmasala	11	7	4	8	4	20	12	18	19	...	16	9	139	1	2	2	...	...	3	...	...	...	1	1	11	
Bakloh	10	10	9	20	4	25	25	20	2	...	17	7	238	1	...	...	...	...	...	...	...	...	...	...	...	2
Khairagali . . . . .	...	...	...	...	...	3	2	1	...	7	...	...	18	...	...	...	...	2	...	...	...	...	...	...	...	2
Baragali . . . . .	...	...	...	...	...	...	...	3	...	1	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...
Kalabagh . . . . .	...	...	...	...	...	...	1	2	...	2	...	...	7	...	...	...	...	...	...	...	...	...	...	...	...	...
Chitral	2	...	...	...	1	...	...	...	...	...	...	...	3	2	1	...	1	...	...	...	...	...	...	...	1	5
Kila Doshi	10	3	8	3	10	36	23	18	5	12	13	5	146	5	1	2	1	...	...	...	...	...	1	...	10	
Malakand	5	...	10	15	21	20	12	23	7	56	17	9	215	2	3	5	1	3	3	1	2	1	1	1	...	23	
Dargai	7	2	...	...	4	5	1	91	62	82	65	51	371	3	...	1	...	...	...	1	...	...	2	4	11	
Chakdara	4	...	1	3	1	8	20	152	243	146	132	12	722	3	1	...	...	...	...	...	...	...	2	...	6	
Abbottabad	131	47	82	158	65	81	64	101	160	117	68	28	1,102	32	8	8	5	4	4	...	...	2	3	...	4	70
Cherat . . . . .	...	...	...	1	1	...	...	...	...	...	...	...	2	...	1	...	...	...	...	...	...	...	...	...	...	1
Fort Lockhart . . . .	...	...	...	...	...	...	...	...	3	4	51	29	87	...	1	...	...	...	...	...	...	...	1	1	1	4
Hangu	6	...	...	1	5	6	4	7	6	4	...	...	39	1	...	...	...	1	...	1	1	...	...	...	...	4

NATIVE TROOPS, 1908.

TABLE XXXV—concluded.

MALARIA by months, stations, groups, and armies.

TABLE XXXVI—concluded.

PNEUMONIA by months, stations, groups, and armies.

STATIONS, GROUPS, AND ARMIES.	ADMISSIONS FROM MALARIA IN EACH MONTH.													ADMISSIONS FROM PNEUMONIA IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Mir Ali Khel . . . . .	...	3	3	3	1	15	11	10	14	20	3	1	84	1	...	...	...	1	...	...	...	...	...	...	...	2
Fort Sandeman . . . . .	...	...	2	1	5	17	4	11	40	11	24	15	130	6	...	3	...	...	...	...	...	1	...	3	8	21
Hindu Bagh . . . . .	...	...	...	...	...	...	3	7	5	2	...	...	17	...	...	...	...	...	...	...	...	...	...	...	...	...
Musa Khel . . . . .	...	...	...	...	1	3	3	1	3	4	...	...	15	...	...	...	...	...	...	...	...	...	...	...	...	...
Kila Saifulla . . . . .	...	...	...	...	...	...	...	8	13	4	...	3	28	...	...	...	...	...	...	...	...	...	...	...	...	...
Murgha . . . . .	...	...	...	...	1	2	5	10	7	6	3	1	35	1	...	...	...	...	...	...	...	...	...	...	...	1
Loralai	2	...	...	...	...	5	4	27	117	33	45	8	241	4	3	2	1	...	...	...	...	1	2	11	8	32
Gumbaz . . . . .	...	...	...	...	...	1	...	4	3	4	3	2	17	...	...	...	...	...	...	...	...	...	...	1	1	1
Quetta	30	13	5	19	13	21	30	62	137	97	61	31	519	13	8	12	4	4	3	1	1	8	5	9	16	78
Robat . . . . .	...	...	...	1	1	...	5	1	...	2	2	3	15	...	...	...	...	...	...	...	...	...	...	...	...	...
Pishin . . . . .	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Shelabagh . . . . .	...	...	...	...	2	1	1	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...
Chaman . . . . .	...	...	...	1	3	...	...	1	...	...	1	...	6	...	1	...	...	...	...	...	...	...	...	2	3	...
Mount Abu	1	5	...	1	...	2	5	1	2	38	24	4	83	...	...	...	...	...	...	...	...	...	...	...	...	...
Ootacamund . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	...	...	...	...	1	...	...	...	4
Camp Lovedale . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	2
GROUP XII.—HILL STATIONS.	276	138	167	288	205	330	330	674	1,055	1,029	725	328	5,545	84	36	45	21	18	18	8	6	16	19	39	65	375
Marching, India	73	52	35	7	19	41	45	77	140	164	336	101	1,090	19	13	13	1	...	3	...	...	2	2	8	16	77
EXTRA INDIA. (a) In the Indian Command:—																										
Chabbar	9	4	...	2	2	5	...	4	6	9	2	10	53	...	...	...	...	...	...	2	...	...	...	...	...	2
Jask	2	1	...	...	1	...	1	...	...	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...
Muscat	3	1	...	...	4	...	2	1	...	...	...	...	11	...	...	...	...	...	...	1	...	...	...	...	...	1
Baghdad . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	2
Aden	4	...	1	1	...	5	2	...	2	...	3	6	24	...	...	1	...	...	1	...	1	...	...	...	...	4
Khormaksar . . . . .	...	4	...	1	...	...	...	1	...	2	1	1	10	...	...	...	...	...	...	...	...	...	...	...	...	...
Perim . . . . .	...	1	...	...	...	...	...	...	...	...	...	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...
(b) Not in the Indian Command:—																										
Colombo (Ceylon)	1	3	1	6	6	6	5	6	2	4	9	10	59	...	...	...	...	1	...	...	...	...	...	...	...	1
Singapore	5	...	2	7	6	12	14	3	2	5	4	3	63	1	...	...	...	...	...	...	...	...	1	...	...	2
Tien-tsin . . . . .	...	...	...	...	...	1	...	...	...	...	...	...	1	1	...	...	1	2	1	...	1	...	...	1	...	7
Shan-hai-Kwan . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Hong Kong (South China)	20	6	22	9	2	7	5	1	30	9	3	5	119	...	...	3	1	1	1	1	...	2	1	...	1	11
Bazar Valley F. F. . . . .	...	6	1	...	...	...	...	...	...	...	...	...	7	...	10	1	...	...	...	...	...	...	...	...	...	11
Mohmand F. F. . . . .	...	...	...	...	80	29	...	...	...	...	...	...	109	...	...	...	...	12	5	...	...	...	...	...	...	17
ARMY OF INDIA	1,551	816	793	887	1,167	1,491	1,399	2,406	5,538	7,847	6,424	3,478	33,797	392	197	184	68	72	59	39	38	49	75	160	290	1,623
NORTHERN ARMY	956	445	453	605	709	973	813	1,671	3,992	5,456	4,365	2,434	22,882	288	111	102	46	37	34	16	17	21	40	103	169	984
SOUTHERN ARMY	486	303	279	253	345	422	517	648	1,372	2,209	1,707	925	9,466	83	63	65	19	19	15	22	20	24	32	48	103	513

NATIVE TROOPS, 1908.

TABLE XXXVII.

DYSENTERY by months, stations, groups, and armies.

TABLE XXXVIII.

DIARRHOEA by months, stations, groups, and armies.

STATIONS * AND GROUPS.	ADMISSIONS FROM DYSENTERY IN EACH MONTH.												TOTAL.	ADMISSIONS FROM DIARRHOEA IN EACH MONTH.												TOTAL.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
Port Blair . . . . .	...	2	...	...	6	4	2	...	...	2	2	7	25	...	...	...	...	...	...	...	...	1	...	1	1	3
Rangoon . . . . .	...	...	23	9	7	12	4	4	2	7	8	6	82	...	1	...	...	...	...	...	...	...	...	...	...	1
GROUP I.—BURMA COAST AND BAY ISLANDS . . . . .	...	2	23	9	13	16	6	4	2	9	10	13	107	...	1	...	...	...	...	...	...	1	...	1	1	4
Meiktila . . . . .	...	10	7	...	...	...	...	1	...	1	...	...	19	...	2	1	...	...	...	1	...	...	1	...	...	5
Fort Dufferin	1	...	...	1	...	1	2	1	...	4	3	12	15	4	9	8	...	...	...	...	...	...	...	...	...	21
Bhamo . . . . .	...	1	...	1	1	1	...	10	7	5	3	1	30	...	1	1	...	1	2	5	4	1	5	3	2	25
GROUP II.—BURMA INLAND	1	11	7	2	1	2	2	12	7	10	6	3	64	4	12	10	...	1	2	6	4	1	6	3	2	51
Manipur	4	5	2	2	3	2	1	1	1	4	3	...	28	...	...	1	3	5	6	2	...	...	1	...	...	18
Dibrugarh . . . . .	...	...	...	...	...	...	...	...	...	...	...	3	3	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP III.—ASSAM	4	5	2	2	3	2	1	1	1	4	3	3	31	...	...	1	3	5	6	2	...	...	...	1	...	18
Fort William	4	1	2	3	1	3	...	7	...	10	2	4	37	...	...	...	...	...	...	1	...	...	...	...	...	1
Alipore . . . . .	...	...	1	6	1	2	2	6	7	6	4	...	35	2	...	...	...	...	...	...	...	...	...	...	...	2
Barrackpore	1	5	3	9	3	3	14	14	12	14	11	10	99	...	...	1	...	...	...	...	...	...	1	...	...	2
Buxa . . . . .	...	...	...	2	1	1	...	1	1	...	2	1	9	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP IV.—BENGAL AND ORISSA	5	6	6	20	6	9	16	28	20	30	19	15	180	2	...	1	...	...	...	...	1	...	...	1	...	5
B																										
Dinapore	1	1	...	...	1	2	1	3	1	4	...	...	14	...	...	...	...	...	...	...	...	...	...	...	...	...
Benares . . . . .	...	1	2	...	4	...	1	3	5	8	...	1	25	...	...	1	...	...	...	...	...	...	2	...	...	3
Allahabad	3	6	5	7	11	2	3	15	11	27	17	9	116	...	...	1	...	...	...	...	...	...	1	2	...	4
Fyzabad	2	...	2	2	1	...	...	2	1	9	13	6	38	...	...	...	...	...	...	...	...	...	1	2	...	3
Lucknow	2	1	2	8	3	...	...	8	5	12	38	26	165	...	...	...	...	...	...	...	...	...	...	1	...	1
Cawnpore	5	...	...	1	3	1	...	3	3	8	5	3	32	...	...	...	...	...	...	...	...	...	...	...	...	...
Fatehgarh . . . . .	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	1	...	1	...	...	2
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR	13	9	11	18	23	5	5	34	26	68	74	45	331	...	...	2	...	...	...	...	...	1	...	5	5	13
A																										
Bareilly . . . . .	...	...	1	1	1	1	3	6	11	29	6	7	66	...	...	...	...	...	...	1	...	1	1	...	...	3
Rurki . . . . .	...	...	...	...	...	2	...	...	1	4	2	1	10	...	...	...	...	...	...	...	...	...	...	...	...	...
Dehra Dun	3	3	...	8	12	4	13	8	17	24	25	22	141	...	3	...	3	...	2	...	...	1	2	...	...	11
Meerut	3	...	4	4	9	3	2	8	13	11	17	4	78	...	...	...	...	...	...	...	1	4	3	2	...	11
Delhi	2	...	3	...	3	2	1	5	3	6	6	5	36	...	...	...	2	...	...	...	3	12	3	1	1	22
Ambala . . . . .	...	...	2	2	9	1	1	3	19	16	12	9	74	...	...	...	...	...	...	...	1	...	...	...	...	1
B																										
Jullundur	1	3	...	...	3	2	2	4	12	13	12	4	56	...	...	...	...	2	...	...	...	1	...	2	...	5
Ferozepore	1	...	3	3	7	...	...	2	11	16	31	13	87	...	...	2	1	2	...	...	...	1	3	2	...	11
Lahore Cantonment	5	2	1	3	1	7	4	3	6	23	17	5	77	...	...	...	...	...	2	...	...	1	...	1	...	4
Amritsar . . . . .	...	1	...	1	...	1	1	...	1	2	1	2	10	...	...	...	...	...	...	...	...	...	...	...	...	...
Sialkot	3	1	1	1	5	1	...	5	13	12	19	5	66	...	...	1	...	3	...	...	1	...	2	...	...	7
Jhelum	2	...	3	3	2	3	...	7	11	22	9	23	85	...	...	...	1	1	2	...	...	1	3	2	5	15
Rawalpindi	1	...	4	5	10	2	1	2	3	11	15	2	56	...	1	3	1	1	1	2	...	...	1	1	...	11
Attock . . . . .	...	...	...	1	...	...	...	1	2	...	...	...	4	...	...	1	1	...	...	...	2	...	1	1	...	6
GROUP VI.—UPPER SUB-HIMALAYA	21	10	24	32	62	29	28	54	123	189	172	102	846	...	4	7	9	9	5	4	9	16	17	16	11	107

* Stations where neither Dysentery nor Diarrhoea occurred are not shown in these tables. For the annual ratios, see Table XX VIII.

NATIVE TROOPS, 1908.

TABLE XXXVII—continued.

DYSENTERY by months, stations, groups, and armies.

STATIONS AND GROUPS.	ADMISSIONS FROM DYSENTERY IN EACH MONTH.												TOTAL.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
A													
Mardan . . . . .	...	1	...	2	...	3	...	...	5	2	4	1	18
Nowshera	14	2	13	14	20	26	5	13	28	22	22	12	191
Peshawar	8	3	20	5	12	12	9	8	16	16	16	17	142
Fort Jamrud . . . . .	...	...	...	...	...	...	...	...	4	2	...	1	7
Kohat	2	2	11	3	9	10	18	17	20	23	32	9	156
Thal . . . . .	...	...	...	2	2	...	...	4	...	3	1	1	13
Edwardesabad	5	6	4	2	5	11	3	8	13	21	8	11	97
Dera Ismail Khan	8	7	8	6	8	7	5	8	21	28	17	13	136
Jatta	2	...	1	1	...	...	...	...	...	...	...	...	3
Drazinda . . . . .	...	...	1	1	...	...	...	1	2	1	5	1	12
Fort Zam . . . . .	...	...	...	...	1	...	1	...	...	1	...	1	4
Multan	1	3	1	...	3	2	...	...	2	21	11	5	49
B													
Jandola	1	1	...	4	4	2	1	5	1	8	5	5	37
Sibi . . . . .	...	2	...	...	...	1	...	...	1	...	...	1	5
C													
Jacobabad	1	1	...	1	1	...	...	...	1	...	7	13	25
Hyderabad	2	1	...	...	...	1	1	1	3	5	4	6	24
Karachi . . . . .	...	1	2	1	...	...	1	4	9	...	6	3	27
GROUP VII.—N.-W. FRONTIER, INDUS VALLEY, AND NORTH-WESTERN RAJPUTANA	44	30	61	41	65	75	44	69	126	153	138	100	946
A													
Bhuj . . . . .	...	...	1	2	...	...	1	1	...	1	...	...	6
Rajkot . . . . .	...	...	1	...	...	...	...	...	...	...	...	...	1
Deesa	1	...	1	1	...	...	...	...	...	...	...	...	3
Ahmedabad . . . . .	...	1	...	...	...	1	...	8	4	7	1	3	25
Baroda . . . . .	...	...	1	...	...	...	...	6	7	3	...	8	25
B													
Kotra . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	1
Erinpura . . . . .	...	...	...	1	3	...	...	4	5	1	1	...	14
Neemuch . . . . .	...	...	...	...	1	...	...	2	1	1	3	...	8
Deoli	1	...	...	...	...	...	...	...	...	1	2	...	4
Beawar . . . . .	...	...	...	...	...	1	...	...	...	...	...	...	1
Nasirabad . . . . .	...	1	1	...	...	...	2	...	...	...	2	2	8
Ajmr . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	1
Agra . . . . .	...	...	...	1	1	1	...	2	...	1	5	8	19
Jhansi	18	1	1	8	11	4	2	34	23	13	15	7	137
Nowgong	1	1	1	3	1	2	2	...	...	...	2	1	14
Goona . . . . .	...	...	...	...	...	...	3	...	...	1	...	...	4
Agar . . . . .	...	...	...	1	...	...	...	...	1	...	...	...	2
Sehore . . . . .	...	...	...	3	...	...	1	2	...	...	...	...	6
Mhow	4	...	...	...	...	1	1	1	...	3	1	...	11
GROUP VIII.—SOUTH-EASTERN RAJPUTANA, CENTRAL INDIA, AND GUJARAT	25	5	7	20	16	10	12	60	42	32	32	29	290
A													
Saugor	1	1	...	1	2	2	...	2	3	9	1	...	22
Sutna . . . . .	...	...	1	...	...	...	...	...	...	1	...	...	2
Jubbulpore	3	2	11	9	5	4	8	26	10	9	16	12	115
Kampti . . . . .	...	...	...	1	...	...	...	...	...	...	...	...	1

TABLE XXXVIII—continued.

DIARRHŒA by months, stations, groups, and armies.

STATIONS AND GROUPS.	ADMISSIONS FROM DIARRHŒA IN EACH MONTH.												TOTAL.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
A													
Mardan . . . . .	...	...	...	...	...	...	...	...	...	2	...	...	2
Nowshera	2	...	2	1	2	3	2	...	2	2	3	2	21
Peshawar	1	...	11	3	3	4	...	2	1	...	2	1	28
Fort Jamrud . . . . .	...	...	1	...	...	...	...	...	1	...	...	...	2
Kohat . . . . .	...	2	7	2	1	2	13	5	1	4	2	2	41
Thal . . . . .	...	...	...	...	...	...	...	2	...	...	...	...	2
Edwardesabad	5	1	1	1	5	1	...	3	3	...	5	2	27
Dera Ismail Khan	2	3	4	3	...	5	1	3	9	8	14	14	66
Jatta . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Drazinda	1	...	1	...	...	...	...	2	...	1	...	...	5
Fort Zam . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Multan . . . . .	...	...	...	2	1	...	...	1	1	1	5	...	11
B													
Jandola	1	1	...	1	1	1	3	...	...	3	2	...	13
Sibi . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
C													
Jacobabad . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Hyderabad . . . . .	...	...	...	...	...	...	...	2	...	4	5	...	11
Karachi . . . . .	...	...	4	2	...	...	1	...	1	1	2	4	15
GROUP VII.—N.-W. FRONTIER, INDUS VALLEY, AND NORTH-WESTERN RAJPUTANA	12	7	31	15	13	16	20	18	21	22	39	30	244
A													
Bhuj . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Rajkot . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Deesa . . . . .	...	...	...	1	...	...	...	...	...	...	...	...	1
Ahmedabad . . . . .	...	...	...	...	...	...	...	8	4	7	1	3	4
Baroda . . . . .	...	1	2	...	...	...	...	6	7	3	...	8	25
B													
Kotra . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Erinpura . . . . .	...	...	...	...	...	...	...	4	5	1	1	...	14
Neemuch . . . . .	...	...	...	...	...	...	...	2	1	1	3	...	8
Deoli	1	...	...	...	...	...	...	...	...	1	2	...	4
Beawar . . . . .	...	...	...	...	...	1	...	...	...	...	...	...	1
Nasirabad . . . . .	...	1	1	...	...	...	2	...	...	...	2	2	8
Ajmr . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	1
Agra . . . . .	...	...	...	1	1	1	...	2	...	1	5	8	19
Jhansi	2	...	...	...	3	...	...	...	...	...	...	...	137
Nowgong	2	...	...	1	...	...	...	...	...	...	2	1	14
Goona . . . . .	...	...	...	...	...	...	3	...	...	1	...	...	4
Agar . . . . .	...	...	...	1	...	...	...	...	1	...	...	...	2
Sehore . . . . .	...	...	...	3	...	...	1	2	...	...	...	...	6
Mhow	2	...	1	...	2	...	...	...	...	3	1	...	11
GROUP VIII.—SOUTH-EASTERN RAJPUTANA, CENTRAL INDIA, AND GUJARAT	8	2	3	4	7	1	5	11	8	18	12	5	84
A													
Saugor	1	...	...	...	...	...	...	...	...	...	...	...	1
Sutna . . . . .	...	...	...	...	...	...	...	...	...	1	...	...	1
Jubbulpore	1	1	...	1	...	...	...	4	...	...	...	3	10
Kampti . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	1

NATIVE TROOPS, 1908.

TABLE XXXVII—continued.

DYSENTERY by months, stations, groups, and armies.

TABLE XXXVIII—continued.

DIARRHŒA by months, stations, groups, and armies.

STATIONS AND GROUPS.	ADMISSIONS FROM DYSENTERY IN EACH MONTH.													ADMISSIONS FROM DIARRHŒA IN EACH MONTH.													
	January.	February.	March	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	
B																											
Aurangabad . . . . .	...	2	1	1	...	1	1	4	2	1	1	...	14	...	...	...	...	...	1	2	2	2	...	...	...	7
Ahmednagar . . . . .	...	1	1	...	1	...	1	1	1	5	2	2	15	...	...	...	...	...	...	...	...	...	...	...	...	...
Bolarum	4	2	1	...	...	2	5	12	11	9	3	3	52	...	4	...	1	...	5	3	...	3	1	...	1	18
Secunderabad	9	4	6	3	6	6	44	80	20	19	4	35	236	...	...	...	...	...	3	11	5	1	...	1	...	22
Belgaum	1	...	2	2	4	4	1	7	1	1	...	1	24	...	...	...	1	...	...	1	...	...	...	1	...	3
Satara . . . . .	...	...	...	...	...	...	1	1	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Poona	1	3	1	2	3	1	3	11	4	4	6	2	41	...	...	1	3	...	...	...	1	...	1	1	...	7
Kirkee	2	...	2	1	...	...	5	3	2	...	...	2	17	2	2	3	2	1	2	5	2	...	3	2	1	25
GROUP IX.—DECCAN																											
	21	15	26	20	21	20	69	147	54	58	33	57	541	4	7	4	8	1	11	23	14	6	5	5	7	95	
Bombay	3	1	...	1	2	...	1	5	1	2	5	6	27	...	...	...	...	...	2	...	3	3	1	2	4	15
Santa Cruz	15	3	4	2	6	3	10	13	4	5	9	10	84	3	...	...	1	...	...	...	2	...	2	2	3	13
Cannanore . . . . .	...	...	2	2	1	...	...	...	1	...	...	1	7	...	...	...	...	1	...	...	...	...	...	...	...	1
Trivandrum . . . . .	...	...	...	...	1	1	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP X.—WESTERN COAST																											
	18	4	6	5	10	4	11	18	6	7	14	17	120	3	...	...	1	1	2	...	5	3	3	4	7	29
A																											
Bellary . . . . .	...	...	...	1	1	...	1	1	...	1	1	2	8	...	...	...	...	...	...	...	...	...	...	...	...	...
Bangalore	10	19	...	3	1	1	10	52	5	18	7	5	131	7	...	1	...	...	1	2	1	4	5	...	2	23
B																											
Trichinopoly . . . . .	...	1	...	1	...	...	...	...	...	...	2	1	5	...	...	...	...	...	...	...	...	...	5	...	...	5
St. Thomas' Mount	1	...	2	...	...	...	...	1	1	...	2	...	7	...	...	...	...	...	2	...	...	...	1	...	...	3
Madras	1	1	2	...	...	...	1	1	...	1	2	2	11	...	...	...	...	...	...	...	1	...	...	...	...	1
GROUP XI.—SOUTHERN INDIA																											
	12	21	4	5	2	1	12	55	6	20	14	10	162	7	...	1	...	...	3	2	2	4	3	6	2	32
Maymyo	2	8	8	2	2	5	4	...	...	...	1	...	32	...	1	1	1	1	2	5	1	...	1	1	...	14
Kohima . . . . .	...	1	1	1	1	...	...	...	3	2	...	...	9	...	...	...	...	...	1	...	...	...	...	...	...	2
Shillong	1	3	...	...	1	2	4	...	3	4	1	2	21	...	1	...	2	...	...	...	...	...	1	...	...	4
Gangtok	1	...	...	1	...	...	...	...	...	...	...	1	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Gyantse . . . . .	...	...	...	...	...	...	...	3	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Almora . . . . .	...	...	...	4	1	2	3	2	1	1	1	...	15	...	...	...	...	...	2	2	...	...	...	...	...	4
Naini Tal . . . . .	...	...	...	...	...	1	1	...	...	1	...	...	3	...	...	...	1	1	...	1	...	...	...	...	...	3
Lansdowne	1	1	...	11	17	12	17	16	9	3	3	6	96	...	...	...	1	2	3	11	5	5	1	1	2	31
Simla . . . . .	...	...	...	2	...	2	...	...	...	27	...	1	31	...	...	...	...	...	...	...	...	...	...	...	...	...
Jutogh . . . . .	...	...	...	2	2	1	...	...	1	3	...	...	9	...	...	...	...	...	...	...	...	...	...	...	...	...
Dharmasala	1	1	...	7	...	1	1	1	2	...	...	...	14	...	...	1	2	...	2	3	2	1	...	...	...	11
Bakloh	1	1	1	3	1	4	3	4	1	...	1	1	21	...	3	...	4	...	...	1	...	2	...	...	...	10
Baragali . . . . .	...	...	...	...	...	...	2	...	...	...	...	...	2	...	...	...	...	2	...	...	...	...	...	...	...	2
Kalabagh . . . . .	...	...	...	...	...	...	1	...	1	...	...	...	2	...	...	...	...	...	1	...	...	...	...	...	...	1
Chitral	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Kila Drosh . . . . .	...	1	...	...	1	...	2	3	1	1	...	1	10	...	...	...	...	...	4	...	4	...	...	...	...	8
Malakand	1	...	1	3	5	4	2	3	3	5	2	1	30	...	...	...	...	...	1	...	...	...	...	...	...	1
Dargai . . . . .	...	...	...	...	2	2	...	...	1	...	3	2	10	...	...	...	...	...	...	...	...	...	...	...	...	...
Chakdara . . . . .	...	2	1	1	3	...	1	...	...	...	1	...	9	...	1	...	...	...	...	...	3	...	...	...	...	4
Abbottabad	2	2	3	4	10	17	13	10	8	14	4	6	93	1	3	2	1	6	7	8	2	3	3	3	2	41	
Cherat . . . . .	...	1	1	...	1	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Fort Lockhart . . . . .	...	1	...	...	...	...	...	...	...	1	1	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Hangu	1	...	1	5	3	...	...	...	1	1	...	...	12	...	...	...	...	...	...	...	...	...	...	1	...	1
Mir Ali Khel . . . . .	...	1	1	1	1	1	...	1	3	...	3	...	12	1	...	...	...	...	...	...	...	...	...	...	...	1
Fort Sandeman	2	2	1	...	7	2	2	3	3	4	8	13	47	...	...	...	...	...	1	...	...	...	...	...	...	...
Hindu Bagh . . . . .	...	...	...	...	...	...	...	1	2	1	...	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...
Musa Khel . . . . .	...	...	...	...	...	...	1	1	2	2	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...

NATIVE TROOPS, 1908.

TABLE XXXVII—concluded.

DYSENTERY by months, stations, groups, and armies.

TABLE XXXVIII—concluded.

DIARRHŒA by months, stations, groups, and armies.

STATIONS, GROUPS, AND ARMIES.	ADMISSIONS FROM DYSENTERY IN EACH MONTH.													ADMISSIONS FROM DIARRHŒA IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Kila Saifulla ¹	...	...	...	...	...	...	3	4	3	...	1	...	11	...	...	...	...	...	...	...	...	...	...	...	...	...
Murgha	...	...	...	1	...	...	...	1	4	1	...	...	7	...	...	...	...	...	...	...	...	...	...	...	...	...
Loralai	1	...	...	2	1	...	...	3	...	3	...	...	10	...	...	...	...	3	...	...	8	9	4	5	1	30
Gumbaz	...	...	...	...	...	...	...	...	1	1	1	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Quetta	4	4	5	8	11	15	24	48	58	18	11	3	209	...	...	...	2	...	4	11	49	17	10	2	1	96
Robat	...	...	...	1	2	1	6	2	1	...	2	1	16	...	1	...	...	...	...	5	...	1	1	...	...	8
Shelabagh	2	...	...	...	...	...	...	...	1	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Chaman	...	...	...	...	2	1	2	...	1	3	2	...	11	...	...	...	...	...	...	...	1	...	...	...	...	1
Mount Abu	...	...	1	...	...	...	...	1	1	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Ootacamund	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP XII.—HILL STATIONS	22	29	25	59	74	73	92	107	115	96	48	38	778	2	10	4	13	13	24	51	73	43	23	13	7	276
Marching, India	20	11	9	2	8	27	11	24	6	4	74	40	236	13	4	1	1	4	9	4	6	2	3	4	7	58
EXTRA INDIA.																										
(a) In the Indian Com- mand:—																										
Chabbar	...	...	...	...	1	...	...	2	4	3	3	1	14	...	...	...	...	...	1	1	1	1	...	...	...	4
Jask	...	...	1	...	4	4	...	3	3	...	1	2	18	...	...	...	...	...	...	...	...	...	...	...	...	...
Muscat	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Aden	4	3	2	...	2	...	1	2	1	1	5	6	27	3	...	...	...	1	...	1	2	...	7	11	4	29
Khormaksar	1	...	...	...	...	...	...	1	...	...	1	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Perim	1	3	2	...	...	...	...	4	12	4	1	6	33	...	...	...	...	...	...	...	...	...	...	...	1	1
(b) Not in the Indian Com- mand:—																										
Colombo (Ceylon)	3	...	6	2	5	4	8	10	5	12	10	7	72	...	1	4	5	1	...	...	4	2	...	1	1	19
Singapore	6	18	16	6	8	18	11	5	2	4	2	2	98	4	...	...	...	...	...	...	...	...	1	...	...	5
Tien-tsin	...	...	...	2	...	2	1	2	2	...	1	...	10	...	...	1	...	...	...	...	...	...	...	...	...	1
Lutai	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Hong Kong (South China)	2	1	1	...	1	...	1	3	13	12	8	...	42	1	4	...	...	...	2	1	...	...	2	...	...	10
Bazar Valley, F. F.	...	5	...	...	...	...	...	...	...	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...
Mohmand, F. F.	...	...	...	3	53	8	...	...	...	...	...	...	64	...	...	...	...	23	6	...	...	...	...	...	...	29
ARMY OF INDIA	223	188	239	249	378	309	331	645	576	716	669	496	5,019	63	52	71	59	79	86	121	151	109	110	124	90	1,115
NORTHERN ARMY	94	69	111	156	207	167	142	225	317	503	413	271	2,675	15	19	41	36	36	44	55	42	52	45	61	42	488
SOUTHERN „	99	84	96	80	99	86	160	375	227	178	158	175	1,817	30	24	23	17	15	27	60	98	53	61	56	40	504

III—PRISONERS, 1908.

TABLE K.

JAILS by ADMINISTRATIONS.

JAILS.	Height above the sea-level in feet.*	Authority for height.†	JAILS.	Height above the sea-level in feet.*	Authority for height.†	JAILS.	Height above the sea-level in feet.*	Authority for height.†
ANDAMANS :— Port Blair Convict Settlement	85	S. G.	BENGAL :—contd. Patna (Bankipore)	177	S. G.	N.-W. F. PROVINCE :— Peshawar	1,165	S. G.
BURMA :— Mergui	14	S. G.	Arrah (Shahabad)	191	M. D.	Kohat	1,768	"
Tavoy	69	"	Chapra (Saran)	181	S. G.	Bannu	1,279	"
Moulmein	288	"	Buxar, Central	204	"	Dera Ismail Khan	571	"
Shwegyin	128	"	Sambalpur	500	"	Abbottabad	4,166	"
Toungoo	156	"	Darjeeling	7,168	"			
Rangoon, Central, Europeans	14	"	UNITED PROVINCES OF AGRA			BALUCHISTAN :— Sibi	489	S. G.
" " Natives	14	"	AND OUDH(a) :— Korantadih (Ballia)	227	S. G.	Quetta	5,511	"
Maubin	...	...	Ghazipur	256	"			
Myaungmya	...	...	Azamgarh	255	"			
Bassein, Central	40	S. G.	Gorakhpur	292	"			
Insein	34	"	Basti	336	I. B.	RAJPUTANA :— Ajmer	1,627	S. G.
Henzada	44	"	Fyzabad	305	S. G.			
Myanaung	74	"	Sultanpur	351	"			
Sandoway	...	...	Rai Bareilly	317	"			
Kyaukpada	32	S. G.	Partabgarh	263	"			
Akyab	...	...	Jaunpur	256	"			
Paungde	149	S. G.	Benares, Central	283	"			
Prome	145	"	" District	298	"			
Thayetmyo, Central	653	S. G.	Mirzapur	...	...	CENTRAL PROVINCES :— Damoh	1,236	S. G.
Magwe	860	"	Allahabad, Central (Naini)	415	S. G.	Saugor	1,753	"
Yamethin	...	...	" District	373	"	Jubbulpore, Central	1,306	"
Meiktila	243	S. G.	Karwi	367	"	Narsinghpur	1,305	I. B.
Pagan	249	"	Banda	...	...	Mandla	1,487	S. G.
Myingyan, Central	250	"	Fatehpur	417	S. G.	Bilaspur	887	"
Mandalay	600	M. O.	Hamirpur	412	"	Raipur, Central	968	"
Monywa	...	...	Orai (Jalaun)	400	"	Balaghat (Burha)	...	...
Shwebo	351	S. G.	Cawnpore	...	...	Seoni	2,043	S. G.
Mogok	329	"	Unao	378	"	Chhindwara	2,236	"
Bhamo	361	"	Lucknow, Central	398	S. G.	Hoshangabad	1,030	"
Katha	...	...	" District	471	"	Nimar (Khandwa)	1,042	I. B.
Kindat	...	...	Barabanki	449	"	Betul	2,189	S. G.
EASTERN BENGAL AND ASSAM :— Cachar (Silchar)	104	M. D.	Gonda	507	S. G.	Nagpur, Central	1,025	"
Sibsagar	318	S. G.	Bahraich	614	"	Bhandara	861	"
Dibrugarh	342	"	Kheri	544	"	Wardha	935	"
Tezpur	292	"	Sitapur	610	"	Chanda	658	"
Nowgong	208	"	Hardoi	727	"	Yeotmal	1,476	"
Gauhati	134	I. B.	Etawah	655	"	Amraoti	1,194	"
Dhubri	158	S. G.	Mainpuri	772	"	Akola	920	"
Sylhet	257	M. D.	Etah	2,229	"	Buldana	2,132	M. D.
Mymensingh	59	M. D.	Fatehgarh, Central	903	"			
Dacca, Central	20	"	" District	790	"	HYDERABAD RESIDENCY JAIL :— Secunderabad	1,732	S. G.
Tippera (Comilla)	36	"	Shahjahanpur	576	"			
Chittagong	87	"	Pilibhit	554	"	BOMBAY :— Sukkur (b)	...	...
Noakhali	43	"	Bareilly, Central	554	"	Sind Gang	...	...
Bakarganj (Barisal)	13	"	" District	554	"	Hyderabad, Central	134	I. B.
Faridpur	22	S. G.	Budaun	860	"	Karachi	28	S. G.
Pabna	...	...	Aligarh	...	...	Rajkot	414	"
Rajshahi, Central (Ranipur Boalia)	70	M. D.	Bulandshahr	...	...	Ahmedabad, Central	170	"
Bogra	61	"	Moradabad	...	...	Dhulia	842	"
Malda	72	"	Bijnor	...	...	Yerrowda, Central (Poona)	1,951	I. B.
Dinajpur	116	S. G.	Dehra Dun	...	...	Bijapur	1,998	S. G.
Rangpur	108	"	Saharanpur	...	...	Deccan Gang	...	...
Jalpaiguri	280	"	Muzaffarnagar	...	...	Dharwar	2,385	S. G.
Aijal	3,917	"	Meerut	...	...	Thana	24	"
Kohima	4,500	I. B.	Muttra	...	...	Bombay, Common	...	...
Shillong	4,987	S. G.	Agra, Central	...	...	" House of Correction	20	"
BENGAL :— Khulna	...	...	" District	...	...	Ratnagiri	110	M. D.
Jessore	...	...	Jhansi	...	...	Karwar	12	S. G.
Baraset	...	...	Lalitpur	...	...	Aden	26	"
Presidency, Central, Europeans	17	S. G.	Almora	5,494	S. G.			
" " Natives	17	"	Pauri	6,400	M. D.	MADRAS :— Mangalore	42	S. G.
Alipore	21	I. B.	Naini Tal	...	...	Cannanore, Central	47	"
Alipore, Juvenile	21	"	PUNJAB :— Delhi	715	S. G.	Bellary	1,483	"
Howrah	21	"	Rohtak	712	"	Salem	919	"
Hooghly	34	S. G.	Hissar	689	I. B.	Coimbatore	1,433	"
Burdwan	97	"	Karnal	809	S. G.	Palamcottah	129	"
Krishnagar (Nadia)	32	"	Ambala	902	"	Madura	438	"
Murshidabad (Berhampore)	67	M. D.	Ludhiana	806	"	Trichinopoly, Central	274	"
Purneah	121	S. G.	Hoshiarpur	1,058	"	Tanjore	193	"
Naya Dumka	489	M. D.	Jullundur	900	"	Cuddalore	19	"
Suri (Birbhum)	298	"	Ferozepore	645	"	Vellore, Central	698	"
Bankura	149	M. D.	Amritsar	756	"	Madras, Civil	...	...
Midnapore, Central	59	S. G.	Lahore, Central	...	...	" Penitentiary, Central	15	"
Balasore	74	"	" District	706	"	Rajahmundry, Central	112	M. D.
Cuttack	17	"	" Female	...	...	Vizagapatam	14	S. G.
Puri	...	...	Gurdaspur	...	...	Berhampur	79	"
Angul	745	S. G.	Gujranwala	...	...	Russellkonda	...	...
Chaibassa (Singbhum)	...	...	Sialkot	829	S. G.			
Purulia (Manbhum)	2,164	S. G.	Gujrat	...	...	COORG :— Mercara	3,803	G.
Ranchi (Lohardaga)	1,997	S. G.	Jhelum	827	S. G.			
Palamau (Daltongunge)	375	M. D.	Rawalpindi	1,707	M. O.			
Hazaribagh, Central	147	S. G.	Campbellpore	1,200	S. G.			
Gaya	148	"	Shahpur	644	"			
Bhagalpur, Central	167	"	Mianwali	655	I. B.			
Monghyr	217	"	Lyallpur	...	...	
Darbhanga	179	"	Jhang	...	...	
Champaran (Motihari)	...	...	Montgomery, Central	600	I. B.			
Muzaffarpur	...	...	Mooltan, Central	402	S. G.			
	...	...	" District	...	...	
	...	...	Dera Ghazi Khan	395	"			
	...	...	Simla	7,230	"			

* These are not the exact heights of the jails themselves above sea-level, but usually those of the survey-marks or of the mercury-surface in barometer cisterns in the stations in which the jails are situated.

† S. G. = Surveyor-General of India; I. B. = Intelligence Branch of the Division of the Chief of the Staff; M. D. = Meteorological Department; M. O. = Medical Officers in charge of Station Hospitals in their Sanitary Reports.

(a) Late North-Western Provinces and Oudh.

(b) Prisoners transferred to Sukkur on 28th November 1906.

PRISONERS, 1908.

TABLE XL.

RATIOS of ADMINISTRATIONS.

The ratios of admissions and deaths to strength are taken from Table XLII.

The actuals will be found in Table XLIII.

	RATIOS PER 1,000 OF THE AVERAGE STRENGTH.											
	Burma.	Eastern Bengal and Assam.	Bengal.	United Provinces.	Punjab.	N.-W.F. Province.	Central Provinces.	Bombay.	Madras.	India.*	Andamans.	India.†
I.—AVERAGE ANNUAL STRENGTH	13,871	7,118	15,565	28,308	11,919	1,345	4,013	7,930	10,638	101,336	14,067	115,403
II.—CONSTANTLY SICK RATE OF EACH MONTH—												
January	13'6	27'4	33'4	31'5	28'2	33'0	16'2	32'6	20'0	26'7	79'8	33'6
February	14'2	25'6	32'7	26'6	24'9	26'8	16'4	35'1	18'7	24'9	77'5	31'6
March	15'6	32'8	34'2	26'9	22'7	23'3	18'8	36'6	20'1	26'0	75'9	32'3
April	14'0	36'4	36'6	28'9	22'3	29'6	18'3	33'1	17'9	26'5	76'0	32'6
May	13'9	34'6	38'1	28'4	21'1	24'4	18'4	31'1	20'2	26'4	83'7	33'4
June	14'9	36'5	38'5	28'0	21'8	30'5	20'1	29'5	23'4	26'9	87'7	34'2
July	17'4	41'1	44'7	27'9	21'1	30'3	17'4	35'0	24'9	29'0	89'6	36'2
August	17'3	39'7	44'3	29'5	23'5	31'2	21'8	34'2	29'6	30'2	78'4	35'8
September	15'1	42'4	39'4	32'9	30'8	47'9	27'6	32'0	25'2	31'0	73'6	36'0
October	15'3	45'1	40'1	36'9	32'9	67'8	27'8	30'1	27'0	33'0	74'0	37'8
November	17'9	40'7	38'6	38'3	35'1	60'5	25'4	29'6	23'8	32'8	72'9	37'7
December	16'4	36'3	37'9	35'1	28'0	39'8	21'7	30'6	23'7	30'1	73'4	35'3
OF THE YEAR	15'5	36'6	38'4	30'9	26'1	37'1	21'0	32'5	22'9	28'7	78'6	34'7
INCLUDING SUBSIDIARY JAILS AND LOCK-UPS . . . . .	...	34'6	36'7	...	25'8	38'0	20'9	30'1	21'5	27'9	...	33'8
III.—ADMISSION RATE OF THE YEAR—												
Influenza	4	32'7	2	4'7	2'8	1'5	4'7	...	1	2	...	3'7
Cholera	1'2	2'1	8'4	6	4	...	...	1	14'3	3	...	2'9
Small-pox . . . . .	...	3	1'3	2'6	1'3	...	7	6	2	1'2	...	1'1
Enteric Fever	1'5	4'2	1'0	3	9	7	2	4	2'0	1'1	2	1'0
Malaria	35'6	283'4	247'7	281'3	164'4	672'9	239'5	125'7	72'9	197'7	836'5	278'0
Pyrexia of uncertain origin	16'4	5'9	3'4	9'9	9'1	...	11'0	6'9	13'4	9'4	9'5	4
Tubercle of the lungs	7'6	10'5	12'8	8'2	13'0	6'7	10'0	6'6	7'7	9'	5	5
Pneumonia	3'6	11'5	8'5	18'2	15'9	24'5	5'0	17'2	8'4	12'4	10'2	12'1
Respiratory Diseases	9'2	26'8	27'8	21'4	27'5	30'5	17'4	43'0	20'9	23'3	45'1	26'0
Dysentery	19'4	201'3	181'7	45'6	49'2	76'6	45'1	46'7	64'1	76'9	110'8	81'1
Diarrhoea	11'6	72'5	95'8	23'1	32'0	17'8	28'4	47'8	7'0	37'6	35'5	37'3
Spleen Diseases	1	...	6	2	7	5'9	...	2'8	...	6	2	5
Scurvy	2	8	1'1	1	1	3'0	2	4'2	2	7	2'2	9
Anæmia and Debility	1'9	18'8	13'7	10'2	13'2	15'6	12'5	10'5	20'4	11'8	4	10'4
Abscess, Ulcer, and Boil	39'1	43'0	57'4	84'1	81'5	155'4	65'0	85'	28'6	65'2	99'9	69'4
ALL CAUSES	276'8	917'1	930'0	678'9	581'2	1,221'6	632'2	653'6	442'5	645'9	1,438'5	742'5
INCLUDING SUBSIDIARY JAILS AND LOCK-UPS . . . . .	...	892'5	903'6	...	582'3	1,267'9	632'0	648'1	528'7	651'1	...	742'4
IV.—DEATH RATE OF THE YEAR—												
Cholera	79	1'97	3'98	21	08	...	...	13	7'05	1'68	...	1'47
Small-pox . . . . .	...	14	06	32	17	...	50	...	...	15	...	13
Enteric Fever	22	1'40	32	07	34	74	25	13	85	36	...	31
Malaria	50	1'26	84	1'55	42	1'49	1'00	1'26	1'03	1'04	2'20	1'18
Pyrexia of uncertain origin . . . . .	...	...	13	...	...	...	...	...	...	02	...	02
Tubercle of the lungs	3'39	4'50	5'01	2'79	5'87	74	3'99	3'03	3'20	3'76	7'11	4'17
Pneumonia	1'23	3'23	2'31	4'91	4'53	4'46	1'00	3'28	1'88	3'24	4'12	3'34
Respiratory Diseases	43	1'97	45	1'38	84	2'23	1'50	1'13	75	1'03	1'07	1'03
Dysentery	1'37	8'43	8'54	3'89	3'78	74	5'23	88	7'05	4'67	4'34	4'63
Diarrhoea	14	1'26	1'80	1'27	1'09	...	50	63	...	94	71	91
Hepatic Abscess	22	...	13	11	08	...	...	...	...	09	...	09
Anæmia and Debility	14	1'26	96	46	42	...	...	25	94	55	...	49
Phagedæna, Slough, and Gangrene . . . . .	...	...	...	07	...	...	50	...	...	04	14	05
ALL CAUSES	13'27	31'89	31'51	24'09	23'49	15'61	22'18	18'16	29'80	24'17	26'66	24'47
INCLUDING SUBSIDIARY JAILS AND LOCK-UPS . . . . .	...	31'29	31'19	...	23'44	15'04	22'16	17'37	29'28	24'09	...	24'39
V.—PERCENTAGE IN 100 ADMISSIONS—												
Influenza	16	3'57	02	69	48	12	75	...	02	66	...	50
Cholera	44	23	90	09	07	...	...	02	3'23	51	...	39
Small-pox . . . . .	...	03	14	39	23	...	12	10	04	19	...	14
Enteric Fever	55	46	11	05	16	06	04	06	45	17	01	14
Malaria	12'86	30'90	26'64	41'44	28'30	55'08	37'88	19'24	16'46	30'62	59'54	37'45
Pyrexia of uncertain origin	5'94	64	37	1'44	1'57	...	1'73	1'06	3'04	1'46	66	1'27
Tubercle of the lungs	2'76	1'15	1'38	1'20	2'24	55	1'58	1'00	1'74	1'45	73	1'28
Pneumonia	1'30	1'26	92	2'69	2'74	2'01	79	2'62	1'89	1'92	71	1'64
Respiratory Diseases	3'33	2'93	2'98	3'15	4'74	2'50	2'76	6'58	4'72	3'61	3'14	3'50
Dysentery	7'01	21'95	19'54	6'86	8'46	6'27	7'13	7'14	14'49	11'91	7'70	10'92
Diarrhoea	4'19	7'90	10'30	3'41	5'51	1'46	4'49	7'31	1'57	5'81	2'47	5'03
Spleen Diseases	03	...	06	03	12	49	...	42	...	09	01	07
Scurvy	08	09	12	01	01	24	04	64	04	11	15	12
Anæmia and Debility	70	2'05	1'48	1'50	2'27	1'28	1'97	1'60	4'61	1'82	02	1'40
Abscess, Ulcer, and Boil	14'14	4'69	6'17	12'38	14'02	12'72	10'29	13'08	6'46	10'09	6'94	9'35
VI.—PERCENTAGE IN 100 DEATHS—												
Cholera	6'0	6'2	12'6	9	4	...	...	7	23'7	6'9	...	6'0
Small-pox . . . . .	...	4	2	1'3	7	...	2'2	...	...	6	...	5
Enteric Fever	1'6	4'4	1'0	3	1'4	4'8	1'1	7	2'8	1'5	...	1'3
Malaria	3'8	4'0	2'6	6'5	1'8	9'5	4'5	6'9	3'5	4'3	8'3	4'8
Pyrexia of uncertain origin . . . . .	...	...	4	...	...	...	...	...	...	1	...	1
Tubercle of the lungs	25'5	14'1	15'9	11'6	25'0	4'8	18'0	16'7	10'7	15'6	26'7	17'0
Pneumonia	9'2	10'1	7'3	20'4	19'3	28'6	4'5	18'1	6'3	13'4	15'5	13'7
Respiratory Diseases	3'3	6'2	1'4	5'7	3'6	14'3	6'7	6'2	2'5	4'2	4'0	4'2
Dysentery	10'3	26'4	27'0	16'1	16'1	4'8	23'6	4'9	23'7	19'3	16'3	18'9
Diarrhoea	1'1	4'0	5'7	5'3	4'6	...	2'2	3'5	...	3'9	2'7	3'7
Hepatic Abscess	1'6	...	4	4	4	...	...	...	3	4	...	4
Anæmia and Debility	1'1	4'0	3'0	1'9	1'8	...	...	1'4	3'2	2'3	...	3'0
Phagedæna, Slough, and Gangrene . . . . .	...	...	...	3	...	...	2'2	...	...	2	5	2

* Including Ajmer, Sibi, Quetta, Secunderabad, Mercara and excluding Andamans.
† Including Ajmer, Sibi, Quetta, Secunderabad, Mercara and Andamans.

For complete detail of diseases, see Table LIII.

PRISONERS, 1908.

TABLE XLI.

RATIOS of GEOGRAPHICAL GROUPS.

The ratios of admissions and deaths to strength are taken from Table XLII.

The actuals will be found in Table XLIII.

RATIOS PER 1,000 OF THE AVERAGE STRENGTH.													
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	I
	Burma Coast and Bay Islands.	Burma Inland.	Assam.	Bengal and Orissa.	Gange-tic Plain and Chutia Nagpur.	Upper Sub-Hima-laya.	N.-W. Frontier, Indus Valley, and N.-W. Rajput-ana.	S.-E. Rajput-ana, Central India, and Gujarat.	Dec-can.	West-ern Coast.	South-e-n India.	Hills.	India.*
I.—AVERAGE ANNUAL STRENGTH	9,542	4,329	1,532	12,584	26,317	13,349	8,293	4,666	7,557	2,400	9,636	666	101,336
II.—CONSTANTLY SICK RATE OF EACH MONTH—													
January	13'9	12'9	20'8	35'6	27'9	30'5	27'2	38'5	30'7	21'3	20'4	18'4	26'7
February	14'3	14'0	18'0	33'0	25'4	25'9	25'0	36'3	31'5	22'8	19'1	18'3	24'9
March	15'2	16'7	18'9	38'0	26'7	22'7	25'0	36'0	33'4	28'6	20'0	16'9	26'0
April	13'7	14'9	22'5	39'5	29'1	23'6	27'6	35'2	31'1	21'2	17'9	20'1	26'5
May	13'6	14'6	23'3	40'5	28'4	24'4	24'8	32'4	30'1	22'5	20'4	23'0	26'4
June	15'2	14'0	30'0	42'3	27'1	24'5	25'3	33'5	29'6	24'4	23'4	24'3	26'9
July	18'4	14'9	45'5	46'4	29'1	24'2	25'4	30'7	32'7	27'7	24'8	33'2	29'0
August	17'6	16'6	33'2	46'9	30'1	26'4	27'5	34'0	32'9	28'4	29'5	31'0	30'2
September	14'4	16'5	26'6	45'6	28'8	36'6	31'3	42'8	34'3	23'8	25'3	33'3	31'0
October	13'7	18'7	29'0	48'2	32'4	40'5	32'2	42'8	33'5	26'1	26'4	34'5	33'0
November	16'8	20'3	27'5	43'4	32'0	47'3	32'6	40'8	31'1	27'2	22'6	26'4	32'8
December	16'9	15'4	22'8	39'7	30'0	37'3	31'1	41'9	30'4	21'1	23'2	39'6	30'1
OF THE YEAR	15'3	15'8	26'5	41'7	29'0	30'3	27'9	37'0	31'8	24'6	22'8	26'8	28'7
II.—ADMISSION RATE OF THE YEAR—													
Influenza	'6	...	...	18'0	2'5	7'3	1'0	...	2'5	...	'1	...	4'2
Cholera	'3	3'2	2'6	5'5	3'0	'1	'5	'2	'8	...	13'0	40'5	3'3
Small-pox . . . . .	...	...	'7	'5	2'6	2'1	1'0	'2	'7	1'2	'2	...	1'2
Enteric Fever	'8	3'0	...	3'1	'2	'9	'5	1'1	'5	3'8	1'2	...	1'1
Malaria	33'4	40'4	627'3	251'5	204'8	351'6	203'9	193'3	210'3	109'2	69'1	184'7	197'7
Pyrexia of uncertain origin	16'8	15'7	...	5'6	11'3	7'6	4'2	...	9'0	8'3	13'4	...	9'4
Tubercle of the lungs	7'5	7'9	3'9	13'2	8'9	9'3	12'5	7'7	8'7	7'5	8'1	10'5	9'4
Pneumonia	2'0	7'2	7'8	9'0	11'7	25'7	22'7	19'1	4'2	6'7	8'5	16'5	12'4
Respiratory Diseases	9'3	9'0	18'3	30'4	19'2	21'4	42'3	32'8	22'8	49'6	18'5	75'1	23'3
Dysentery	14'0	31'2	91'4	196'0	86'8	62'0	47'8	25'7	50'8	80'0	58'7	91'6	76'9
Diarrhœa	11'8	11'1	92'7	89'3	40'2	25'8	31'4	29'4	49'4	30'4	5'9	61'6	37'6
Spleen Diseases	'1	...	...	'6	'2	'2	1'9	'2	2'1	'8	...	6'0	'6
Scurvy	'3	...	...	1'7	'0	...	4'1	'4	'5	...	'2	1'5	'7
Anæmia and Debility	1'4	3'2	20'2	16'0	12'3	10'3	11'0	10'1	10'7	17'9	19'3	27'0	11'8
Abscess, Ulcer, and Boil	37'6	42'5	53'5	53'8	74'2	82'3	85'3	81'7	96'1	35'4	28'3	85'6	65'2
ALL CAUSES	270'5	290'8	1138'4	956'6	660'9	771'4	650'3	580'4	744'3	530'0	432'9	867'9	645'9
IV.—DEATH RATE OF THE YEAR—													
Cholera	'10	2'31	2'61	2'62	1'44	'07	'12	'21	'66	...	5'81	28'53	1'68
Small-pox . . . . .	...	...	'65	...	'19	'45	'12	...	'26	...	...	...	'15
Enteric Fever	'21	'23	...	'92	'11	'22	'36	'21	'26	1'67	'52	...	'36
Malaria	'63	'23	1'96	'85	1'56	'82	1'33	'43	'79	2'50	'42	4'50	1'04
Pyrexia of uncertain origin . . . . .	...	...	...	'08	'04	...	...	...	...	...	...	...	'02
Tubercle of the lungs	3'56	3'00	1'96	4'85	3'65	3'52	4'82	2'79	3'71	3'75	3'22	6'01	3'76
Pneumonia	'73	2'31	2'61	2'85	3'12	7'27	4'46	4'71	1'06	1'25	1'97	3'00	3'24
Respiratory Diseases	'31	'69	...	1'31	1'25	'97	1'09	'64	1'72	'42	'83	1'50	1'03
Dysentery	1'15	1'85	7'18	8'09	5'40	4'49	2'29	2'79	3'31	'83	6'54	21'02	4'67
Diarrhœa	'10	'23	'65	1'31	1'44	1'27	'96	1'50	'26	'83	...	1'50	'94
Hepatic Abscess	'21	'23	...	'08	'11	'15	...	...	...	...	'10	...	'10
Anæmia and Debility	'10	'23	2'61	1'00	'72	'22	'24	'21	'13	'42	'73	4'50	'55
Phagedæna, Slough, and Gangrene . . . . .	...	...	...	...	'08	...	...	...	'26	...	...	...	'04
ALL CAUSES	11'11	18'02	26'76	29'57	27'36	24'72	23'15	19'29	19'32	17'92	27'09	87'09	24'17
V.—PERCENTAGE IN 100 ADMISSIONS—													
Influenza	'23	...	...	1'89	'37	'94	'15	...	'34	...	'02	...	'66
Cholera	'12	1'11	'23	'58	'45	'02	'07	'04	'11	...	3'00	4'67	'51
Small-pox . . . . .	...	...	'06	'06	'39	'27	'15	'04	'09	'24	'05	...	'19
Enteric Fever	'31	1'03	...	'32	'03	'12	'07	'18	'07	'71	'29	...	'17
Malaria	12'36	13'90	55'10	26'29	30'98	45'58	31'36	33'31	28'25	20'60	15'97	21'28	30'62
Pyrexia of uncertain origin	6'20	5'40	...	'59	1'71	1'00	'65	...	1'21	1'57	3'09	...	1'46
Tubercle of the lungs	2'79	2'70	'34	1'38	1'35	1'20	1'93	1'33	1'17	1'42	1'87	1'21	1'45
Pneumonia	'74	2'46	'69	1'04	1'76	3'33	3'49	3'29	'57	1'97	1'97	1'90	1'92
Respiratory Diseases	3'45	3'10	1'61	3'18	2'91	2'78	6'51	5'65	3'06	9'36	4'27	8'65	3'61
Dysentery	5'19	10'72	8'03	20'58	13'13	8'03	7'34	4'43	6'83	15'09	13'57	10'55	11'91
Diarrhœa	4'38	3'81	8'14	9'33	6'08	3'35	4'82	5'06	6'63	5'74	1'37	7'09	5'31
Spleen Diseases	'04	...	...	'06	'03	'03	'30	'04	'28	'16	...	'69	'09
Scurvy	'12	...	...	'18	'01	...	'63	'07	'07	...	'05	'17	'11
Anæmia and Debility	'50	1'11	1'78	1'67	1'87	1'33	1'69	1'74	1'44	3'38	4'46	3'11	1'82
Abscess, Ulcer, and Boil	13'91	14'61	4'70	5'62	11'23	10'66	13'11	14'07	12'91	6'68	6'55	9'86	10'09
VI.—PERCENTAGE IN 100 DEATHS—													
Cholera	'9	12'8	9'8	8'9	5'3	'3	'5	1'1	3'4	...	21'5	32'8	6'9
Small-pox . . . . .	...	...	2'4	...	'7	1'8	'5	...	1'4	...	...	...	'6
Enteric Fever	1'9	1'3	...	3'1	'4	'9	1'6	1'1	1'4	9'3	1'9	...	1'5
Malaria	5'7	1'3	7'3	2'9	5'7	3'3	5'7	2'2	4'1	14'0	1'5	5'2	4'3
Pyrexia of uncertain origin . . . . .	...	...	...	'3	'1	...	...	...	...	...	...	...	'1
Tubercle of the lungs	32'1	16'7	7'3	16'4	13'3	14'2	20'8	14'4	19'2	20'9	11'9	6'9	15'6
Pneumonia	6'6	12'8	9'8	9'6	11'4	29'4	19'3	24'4	5'5	7'0	7'3	3'4	3'4
Respiratory Diseases	2'8	3'8	...	4'4	4'6	3'9	4'7	3'3	8'9	2'3	3'1	1'7	4'2
Dysentery	10'4	10'2	26'8	27'3	19'7	18'2	9'9	14'4	17'1	4'7	24'1	24'1	19'3
Diarrhœa	'9	1'3	2'4	4'4	5'3	5'2	4'2	7'8	1'4	4'7	...	1'7	3'9
Hepatic Abscess	1'9	1'3	...	'3	'4	'6	...	...	...	...	'4	...	'4
Anæmia and Debility	'9	1'3	9'8	3'4	2'6	'9	1'0	1'1	'7	2'3	2'7	5'2	2'3
Phagedæna, Slough, and Gangrene . . . . .	...	...	...	...	'3	...	...	...	1'4	...	...	...	'2

* Including Aden. For complete detail of diseases, see Table LIII.

PRISONERS, 1908.

TABLE XLII.

RATIOS of FAILS, GROUPS, and ADMINISTRATIONS.

For actuals see Table XLIII.

JAILS AND GROUPS.	Average annual strength.	1. ADMISSION RATE.										2. DEATH RATE PER 1,000 OF STRENGTH.										Average number constantly sick per 1,000 of strength.
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Pyrexia of un- certa in origin.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.			
Mergui .	79 {	...	...	...	...	25.3	75.9	...	...	...	189.9 37.97	38.0	...	...	25.3	12.7	...	...	430.4 37.97	25.3
Tavoy .	110 {	...	...	...	18.2	9.1	...	...	9.1	9.1 9.09	9.1	9.1	...	...	...	...	...	...	72.7 9.09	9.1
Moulmein .	579 {	...	...	...	1.7 1.73	53.5 5.18	...	5.2	3.5	17.3	29.4 5.18	13.8	...	...	...	...	39.7	...	362.7 13.82	19.0
Shwegyin .	161 {	...	...	...	...	37.3	...	...	...	6.2	...	...	...	...	...	18.6	80.7	...	273.3	12.4
Toungoo .	572 {	10.5	...	...	1.7	14.0	8.7	7.0	1.7	15.7	14.0 1.75	5.2	...	...	...	...	19.2	...	260.5 8.74	29.7
Rangoon, Central (Euro- peans).	17 {	...	...	...	...	117.6	...	...	...	...	...	117.6	...	...	...	...	...	...	352.9	14.5
Rangoon, Central (Natives).	2,485 {	...	...	...	.4 .40	34.6 .40	55.1	10.1 6.44	1.6 .80	12.5 .80	13.3	28.2 .40	.4 .40	...	...	.4	55.1	...	357.3 14.89	18.5
Maubin .	151 {	...	...	...	...	72.8	...	...	...	...	26.5 6.62	26.5	...	...	...	6.6	19.9	...	569.5 33.11	19.9
Myaungmya .	847 {	...	2.4	...	...	20.1 1.18	...	5.9 1.18	1.2	3.5	3.5	3.5	1.2 1.18	...	...	2.4	22.4	...	142.9 4.72	8.3
Bassein, Central	1,102 {	...	.9 .91	...	1.8	24.5	...	10.9 1.81	.9	5.4	20.0	.9	...	...	...	.9	28.1	...	285.8 3.63	20.0
Insein, Central	2,304 {	...	...	...	...	44.7	4.3	7.8 5.21	1.7 .87	6.9 .43	...	...	...	.4 .43	...	.4 .43	35.9	...	138.8 9.98	10.0
Henzada .	412 {	...	...	...	2.	2.4	...	4.9 243	...	4.9	...	...	...	...	...	2.4	26.7	...	165.0 9.71	7.3
Myanaung .	79 {	...	...	...	...	12.7	...	...	12.7	...	12.7	...	...	...	...	12.7	...	...	189.9 12.66	12.7
Sandoway .	84 {	...	...	...	...	...	...	...	11.9	11.9	11.9 11.90	...	...	...	...	11.9	71.4	...	154.8 23.81	11.9
Kyaukpyu .	145 {	...	...	...	...	124.1	...	13.8	6.9 6.90	27.6	117.2 6.90	124.1	...	...	...	...	96.6	...	793.1 13.79	27.6
Akyab .	415 {	...	...	...	...	12.0 2.41	4.8	2.4 2.41	7.2 4.82	12.0	28.9	...	...	...	2.4	...	14.5	...	178.3 16.87	9.6
GROUP I.— BURMA COAST AND BAY ISLANDS	9,542 {	.6	.3 .10	...	.8 .21	33.4 .63	16.8	7.5 3.56	2.0 .73	9.3 .31	14.0 1.15	11.8 .10	.2 .21	.1 .10	.3	1.4 .10	37.6	...	270.5 11.11	15.3
Paungde .	165 {	...	24.2 12.12	...	...	36.4	...	12.1 6.06	6.1 6.06	6.1	42.4 6.06	...	...	...	...	...	12.1	...	266.7 42.42	24.2
Prome .	379 {	...	26.4 18.4	...	...	87.1 2.64	...	7.9 2.64	13.2 2.64	13.2	10.6 2.64	26.4	...	...	...	7.	147.8	...	543.52 29.02	23.7
Thayetmyo, Central.	917 {	...	...	...	...	18.5	2.2	12.0 5.45	7.6 1.09	6.5 1.09	5.5	4.4	...	...	...	1.1	9.8	...	172.3 12.00	7.6
Magwe .	187 {	...	...	...	...	58.8	...	...	...	5.3 5.35	...	...	...	...	...	5.3	5.3	...	133.7 5.35	5.3
Yamethin .	96 {	...	...	...	...	31.2	...	...	...	31.2	31.2 10.42	...	...	...	...	...	20.8	...	208.3 20.83	20.8
Meiktila .	83 {	...	...	...	...	12.0	...	...	...	...	12.0	...	...	...	...	12.0	...	...	108.4	5.2*
Pagan .	63 {	...	...	...	...	31.7	...	31.7 31.75	...	15.9	15.9	15.9	...	...	...	...	79.4	...	333.3 47.62	15.9
Myingyan, Central .	947 {	...	...	...	9.5 1.06	13.7	14.8	12.7 4.22	8.4 5.28	11.6 1.06	101.4 2.11	24.3 1.06	1.06	...	...	4.2	33.8	...	322.1 27.46	23.2
Mandalay, Central .	900 {	...	1.11	...	1.1	66.7	40.0	3.3	6.7	11.1	17.8 2.22	4.4	...	...	...	2.2 1.11	52.2	...	352.2 8.89	14.4
Monywa .	86 {	...	...	...	...	11.6	...	...	...	...	...	11.6	...	...	...	...	34.9	...	186.0 23.26	11.6
Shwebo .	225 {	...	...	...	13.3	22.2	57.8	...	4.4 4.44	4.4	...	...	...	...	...	...	71.1	...	311.1 8.89	17.8
Mogok .	71 {	...	...	...	...	42.3	...	14.1	...	...	...	...	...	...	...	...	14.1	...	98.6 14.08	14.1
Bhamo .	76 {	...	...	...	...	171.0	26.3	...	26.3 13.16	...	13.2	...	...	...	...	13.2	65.8	...	447.4 26.32	13.2
Katha .	76 {	...	...	...	...	...	13.2	...	13.2	...	...	65.8	...	...	...	...	13.2	...	144.7 13.16	13.2
Kindat .	58 {	...	...	...	...	120.7	...	...	...	...	17.2 17.24	...	...	...	...	17.2	69.0	...	275.9 17.24	17.2
GROUP II.— BURMA INLAND.	3,329 {	...	3.2 2.31	...	3.0 .23	40.4 .23	15.7	7.9 3.00	7.2 2.31	9.0 .69	31.2 1.85	11.1 .23	...	...	...	3.2 .23	42.5	...	290.8 18.02	15.8

*Worked on the aggregates.

TABLE XLII—continued.

RATIOS of FAILS, GROUPS, and ADMINISTRATIONS.

For actuals see Table XLIII.

JAILS AND GROUPS.	Average annual strength.	1. ADMISSION RATE.										2. DEATH RATE PER 1,000 OF STRENGTH.										Average number constantly sick per 1,000 of strength.
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Pyrexia of un- certain Origin.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.			
Cachar .	71 {	...	14'1 14'08	...	...	436'6	...	...	56'3 14'08	14'1	56'3	84'5	...	...	...	...	28'2	...	816'9 42'25	14'1
Sibsagar .	73 {	...	...	...	...	260'3	...	...	...	27'4	219'2 27'40	68'5	...	...	...	...	109'6	...	808'2 27'40	27'4
Dibrugarh .	104 {	...	...	...	...	1,240'4	...	9'6 9'62	19'2	67'3	19'2	105'8	...	...	...	57'7 19'23	28'8	...	1,682'7 38'46	38'5
Tezpur .	267 {	...	...	...	...	116'1	...	7'5 7'49	...	15'0	7'5	15'0	...	...	...	7'5	41'2	...	295'9 18'73	11'2
Nowgong .	54 {	...	...	...	...	...	...	...	...	18'5	18'5	18'5	...	...	...	...	37'0	...	277'8	18'5
Gauhati .	308 {	...	9'7 9'74	3'2 3'25	...	289'0 3'25	...	3'2	3'2	13'0	71'4 19'48	178'6	...	...	...	16'2 3'25	58'4	...	831'2 51'95	35'7
Dhubri .	37 {	...	...	...	...	1,081'1	...	...	...	27'0	40'5'4	297'3	...	...	...	54'1	...	...	2,675'7	54'1
Sylhet .	618 {	...	...	...	...	1,006'5 3'24	...	3'2	8'1 3'24	12'9	126'2 4'85	79'3 1'62	...	...	...	25'9 1'62	61'5 1'62	...	1,623'0 17'80	27'5
GROUP III.— ASSAM.	1,532 {	...	2'6 2'61	7'65	...	627'3 1'96	...	3'9 1'96	7'8 2'61	18'3	91'4 7'18	92'7 65	...	...	...	20'2 2'61	53'5 65	...	1,138'4 26'76	26'5
Mymensingh.	580 {	25'9 ...	12'1 10'34	...	3'4 1'72	274'1 ...	...	6'9 6'90	8'6 3'45	32'8	375'9 8'62	201'7 1'72	...	...	1'7	36'2 3'45	24'1	1'7	1,279'3 37'93	48'3
Dacca, Central	1,270 {	163'8	...	...	...	148'0 1'57	...	15'0 7'09	10'2 4'72	28'3 5'51	234'6 12'60	91'3 1'57	8	...	...	16'5	55'1	...	937'0 37'80	55'1
Tippera .	428 {	...	...	...	...	119'2	...	7'0 4'67	7'0	...	133'2 7'01	...	...	...	4'7 2'34	14'0	35'0	...	469'6 18'69	23'4
Chittagong .	226 {	...	...	...	...	92'9	...	8'8 4'42	17'7 4'42	31'0 4'42	168'1 4'42	4'4	...	...	...	...	53'1	...	708'0 17'70	26'5
Noakhali .	178 {	...	...	...	...	151'7 5'62	...	...	...	...	758'4	...	...	...	...	5'6	5'6	...	994'4 5'62	33'7
Bakarganj .	529 {	...	...	...	...	147'4	...	9'5 1'89	37'8 1'89	105'9 3'78	37'8	30'2 7'56	...	...	...	39'7 5'67	51'0	...	756'1 20'79	22'7
Khulna .	64 {	...	...	...	...	906'2	...	...	...	62'5	234'4 15'62	78'1	...	...	31'2	15'6	93'8	...	1,906'2 15'62	62'5
Jessore .	401 {	...	...	...	...	458'9 2'49	52'4 2'49	12'5 2'49	17'5 4'99	39'9	633'4 9'98	67'3 2'49	...	...	...	34'9 7'48	94'8	...	1,678'3 32'42	64'8
Baraset .	118 {	...	...	...	...	771'2	...	...	...	8'5	678'0 8'47	254'2 8'47	...	...	...	16'9	42'4	...	2,423'7 33'90	67'8
Presidency, Central (Europeans).	35 {	28'6	...	...	...	314'3	...	...	57'1	...	...	114'3	...	...	...	...	85'7	...	1,171'4 28'57	57'1
Presidency, Central (Natives).	1,180 {	...	...	8	...	267'8	...	11'0 4'24	8	14'4	122'9 2'54	106'8	...	...	11'9	16'1 1'69	22'0	...	818'6 11'02	36'4
Alipore, Central	1,903 {	...	1'1	5	...	348'4 1'58	16	22'6 6'83	4'7 2'10	29'4	114'0 4'20	110'4	...	1'6	...	5'3	61'5	...	909'1 16'82	46'2		
„ „ Juvenile	23 {	...	...	...	...	130'4	...	...	...	43'5	173'9	...	...	...	...	...	...	...	652'1	21'9*
Howrah .	76 {	...	...	...	...	184'2	13'2	13'2 13'16	...	13'2	539'5 26'32	26'3	...	...	...	13'2	26'3	...	1,039'5 39'47	39'5
Hooghly .	358 {	...	...	...	...	282'1	...	22'3 8'38	16'8 2'79	22'3	61'5 2'79	248'6	...	...	...	8'4	142'5	...	1,181'6 13'97	36'3
Burdwan .	199 {	...	...	5'0	...	467'3	...	10'1	30'2 5'03	45'2	221'1 5'03	85'4 10'05	...	...	...	25'1	50'3	...	1,130'7 20'10	45'2
Krishnagar .	210 {	...	9'5 9'52	...	47'6 9'52	300'0	9'5	9'5	9'5 9'52	42'9 4'76	119'0	147'6 4'76	...	...	...	85'7	85'7	...	1,900'0 47'62	52'4
Faridpur	360 {	27'8	...	...	...	705'6	...	16'7 5'56	11'1 2'78	41'7	275'0 2'78	130'6	...	...	...	33'3	83'3	...	1,783'3 19'44	47'2
Pabna .	199 {	...	...	...	...	80'4	...	...	5'0	...	...	5'0	...	...	...	...	15'1	...	135'7 5'03	5'0
Murshidabad	300 {	...	...	...	...	246'7 13'33	...	3'3 3'33	3'3	16'7	40'0	23'3	...	...	...	13'3	30'0	...	643'3 10'00	33'3
Rajshahi, Central.	803 {	...	5'0 4'98	1'2	33'6 11'21	97'1 2'49	...	22'4 4'98	3'7 1'25	12'5 2'49	246'6 9'96	3'7	...	...	1'2	1'2	26'2	...	547'9 49'81	38'6
Bogra .	150 {	...	...	...	...	166'7 6'67	...	6'7	...	13'3	93'3	26'7	...	...	...	13'3	20'0	...	453'3 13'33	20'0
Malda .	123 {	...	...	...	...	187'0	341'5	...	8'1 8'13	24'4	138'2	227'6 8'13	...	...	...	32'5	40'7	...	1,187'0 16'	24'4
Dinajpur .	299 {	...	...	...	3'3	46'8	...	23'4 10'03	26'1 10'03	10'0	90'3 13'38	73'6	...	...	3'3	26'8	26'8	...	44' 43'	26'8
Rangpur .	236 {	...	...	...	...	419'5	...	8'5 8'47	33'9 12'71	21'2 4'24	618'6 38'11	...	...	...	...	4'2	21'2	...	1,292'4 97'46	76'3

* Worked on the aggregates.

JAILS AND GROUPS.	Average annual strength.	1. ADMISSION RATE.										2. DEATH RATE PER 1,000 OF STRENGTH.										Average number constantly sick per 1,000 of strength.
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Pyrexia of uncertain origin.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhœa.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.			
Jalpaiguri .	127 {	...	...	...	...	47'2	...	7'9	7'9	15'7	78'7	78'7	...	...	...	31'5	23'6	...	598'4	31'5
Purneah .	260 {	...	...	...	...	173'1	...	7'7	11'5	23'1	53'8	46'2	...	...	...	3'8	26'9	...	484'6	34'6
Naya Dumka	144 {	...	208'3 62'50	...	...	118'1	...	13'9	27'8	41'7	437'5	62'5	...	...	...	6'9	48'6	...	1,152'8	34'7
Suri . .	204 {	...	4'9 4'90	...	...	813'7	...	34'3	4'9	24'5	44'1	230'4	...	...	...	49'0	88'2	...	1,911'8	53'9
Bankura .	240 {	...	...	...	...	137'5	...	29'2	12'5	62'5	58'3	104'2	...	20'8	...	25'0	33'3	...	600'0	33'3
Midnapore, Central. }	957 {	...	...	1'0	...	198'5	...	5'2	11'5	56'4	127'5	74'2	...	...	...	1'0	106'6	...	1,050'2	44'9
Balasore .	172 {	...	11'6 5'81	...	...	162'8	...	...	...	5'8	314'0	145'3	5'8	...	...	11'6 5'81	52'3	...	1,646'5	46'5
Cuttack .	343 {	...	2'9 2'92	2'9	...	142'9	11'7	11'7	11'7	61'2	186'6	107'9	...	...	2'9	5'8	72'9	...	868'8	46'6
Puri . .	174 {	...	...	5'7	...	51'7	...	...	...	...	264'4	40'2	...	...	...	34'5	40'2	...	517'2	17'2
Angul . .	115 {	...	200'0 86'96	...	...	165'2	...	8'7	...	17'4	295'7	113'0	...	...	...	...	113'0	...	1,408'7	69'6
GROUP IV.—BENGAL AND ORISSA.	12,984 {	18'0	5'5 2'62	5	3'1 92	251'5 85	5'6 08	13'2 4'85	9'9 2'85	30'4 1'31	196'0 8'09	89'3 1'31	2 08	6	1'7 08	16'0 1'00	53'8	1	956'6 29'57	41'7		
A																						
Chaibassa .	185 {	...	27'0 21'62	...	...	108'1	113'5	5'4	5'4	70'3	129'7	75'7	...	...	...	16'2	70'3	...	945'9	37'8
Purulia .	201 {	...	10'0 4'98	10'0	...	238'8	...	5'0	14'9	24'9	99'5	213'9	...	...	...	24'9	64'7	...	930'3	29'9
Ranchi . .	213 {	...	4'7	14'1	...	145'5	...	9'4	28'2	18'8	417'8	173'7	...	...	...	9'4	51'6	...	1,108'0	61'0
Palamau .	152 {	...	13'2 6'58	6'6	...	315'8	...	...	39'5	19'7	269'7	125'0	...	...	...	19'7	78'9	...	1,092'1	46'1
Hazaribagh, Central. }	1,035 {	...	...	...	1'0	271'5	...	20'3	3'9	39'6	313'0	176'8	...	1'0	...	10'6 97	76'3	...	1,186'5	42'5
B																						
Gaya . .	552 {	3'6	23'6 12'68	1'8	...	96'0	1'8 1'81	7'2	19'9	9'1	119'6	3'6	...	...	...	3'6	36'2	1'8	492'8	18'1
Bhagalpur, Central }	1,866 {	...	5'4 2'68	...	...	163'5	...	12'3	9'1	21'4	91'1	85'7	5 54	...	...	15'5 1'61	46'6	...	661'3	33'2
Monghyr .	372 {	...	...	2'7	...	274'2	...	21'5	...	29'6	215'1	99'5	...	...	...	18'8	75'3	...	1,569'9	43'0
Darbhangha .	319 {	...	3'1 3'13	...	...	37'6	...	15'7	3'1	15'7	241'4	137'9	...	...	...	...	69'0	...	821'3	40'8
Champaran .	315 {	...	...	...	...	120'6	...	...	12'7	25'4	60'3	28'6	...	...	...	3'2 3'17	41'3	...	396'8	12'7
Muzaffarpur .	376 {	...	21'3 10'64	...	2'7	117'0	...	8'0	13'3	10'6	117'0	50'5	...	...	...	13'3 2'66	37'2 2'66	...	537'2	31'9
Patna . .	387 {	...	54'3 25'84	12'9 2'58	...	201'6	...	2'6	7'8	15'5	129'2	72'4	...	...	...	...	54'3	...	692'5	36'2
Arrah . .	275 {	...	...	3'6	...	214'5	...	14'5	3'6	14'5	294'5	65'5	...	...	...	3'6	83'6	...	821'8	25'5
Chapra .	280 {	...	...	...	...	192'9	...	10'7	...	...	214'3	46'4	...	...	...	...	10'7	...	592'9	17'9
Buxar, Central	1,230 {	...	...	...	1'6 1'63	294'3	...	13'0	7'3	5'7	279'7	39'8	...	...	...	28'5	26'8	...	885'4	32'5
Korantadih .	35 {	...	...	...	...	28'6	...	...	...	...	57'1	...	...	...	...	...	28'6	...	200'0	5'9*
Ghazipur .	381 {	...	...	...	...	650'9	...	...	18'4	63'0	63'0	13'1	...	...	...	44'6	78'7	...	1,115'5	63'0
Azamgarh .	302 {	9'9	...	...	3'3 3'31	311'3	...	6'6	16'6	19'9	49'7	16'6	...	...	...	...	76'2	...	668'9	16'6
Gorakhpur .	527 {	3'8	...	3'8 1'90	...	233'4	...	7'6	17'1	41'7	157'5	62'6	...	...	...	68'3 1'90	68'3	...	1,003'8	87'3
Basti . .	363 {	...	...	16'5	...	203'9	...	19'3	60'6	22'0	49'6	19'3	...	...	...	19'3	124'0	...	746'6	38'6
Fyzabad .	599 {	...	...	...	...	141'9	...	5'0	15'0	8'3	16'7	16'7	...	...	...	13'4	163'6	...	652'8	31'7
Sultanpur .	363 {	...	...	...	...	382'9	28	16'5	19'3	24'8	8'3	8'3	...	...	...	11'0	151'5	...	876'0	30'3
Rai Bareilly .	581 {	...	...	...	...	60'2	...	12'0	1'7	24'1	34'4	17'2	...	...	...	6'9	46'5	...	303'2	24'1

Worked on the aggregates.

PRISONERS, 1908.

TABLE XLII—continued.

RATIOS of FAILS, GROUPS, and ADMINISTRATIONS.

For actuals see Table XLIII.

JAILS AND GROUPS.	Average annual strength.	1. ADMISSION RATE.										2. DEATH RATE PER 1,000 OF STRENGTH.										Average number constantly sick per 1,000 of strength.
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Pyrexia of uncer- tain origin.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.			
Partabgarh .	256 {	...	...	3'9	...	238'3	...	15'6	19'5	7'8	66'4	7'8	...	15'6	...	19'5	43'0	...	582'0	23'4
		...	...	...	...	...	...	...	7'81	...	...	...	...	...	...	...	...	...	11'72	
Jaunpur .	303 {	...	...	3'3	...	260'7	...	3'3	19'8	19'8	45'2	46'2	...	...	...	26'4	122'1	...	699'7	29'7
		...	...	...	...	...	...	...	6'60	3'30	9'90	3'30	...	...	...	...	...	...	26'40	
Benares, Central. }	1,881 {	...	...	1'1	...	216'9	...	11'2	3'7	6'4	24'5	9'0	...	...	...	5	111'6	...	555'6	24'5
		...	...	...	...	53	...	5'32	1'59	1'59	1'06	53	...	...	...	1'06	...	...	19'14	
Benares, Dis- trict. }	413 {	...	...	...	2'4	159'8	...	4'8	9'7	4'8	21'8	14'5	...	...	...	7'3	65'4	...	464'9	24'2
		...	...	...	...	4'84	...	2'42	4'84	...	2'42	...	...	...	...	4'84	2'42	...	29'06	
Mirzapur .	222 {	...	...	9'0	...	27'0	...	4'5	4'5	...	13'5	...	...	...	...	9'0	22'5	...	157'7	9'0
		...	...	...	...	...	...	...	4'50	...	...	...	...	...	...	9'01	...	...	22'52	
Allahabad, Central. }	1,643 {	...	6'7	6	...	65'1	151'6	8'5	3'0	22'5	34'1	17'7	...	...	...	2'4	151'6	...	597'1	28'6
		...	2'43	...	...	1'83	...	3'05	6'61	1'22	1'2	...	...	...	...	...	...	...	16'43	
Allahabad, District. }	603 {	...	3'3	3'3	...	131'0	...	10'0	19'9	63'0	79'6	11'6	...	...	...	5'0	142'6	...	837'5	41'5
		...	...	...	...	...	...	1'66	6'63	4'98	9'95	...	...	...	...	...	...	...	31'51	
Karwi .	39 {	...	...	...	...	128'2	...	...	51'3	...	25'6	76'9	...	...	...	...	25'6	...	461'5	12'7*
		...	...	...	...	...	...	...	25'64	...	...	25'64	...	...	...	...	...	...	76'92	
Banda .	209 {	...	9'6	4'8	...	330'1	...	4'8	23'9	62'2	124'4	52'6	...	...	...	4'8	76'6	...	1,090'9	28'7
		...	...	...	...	4'78	...	4'78	14'35	...	...	4'78	...	...	...	...	...	...	52'63	
Fatehpur .	264 {	...	...	...	...	310'6	...	...	22'7	22'7	18'9	102'3	...	...	...	3'8	125'0	...	746'2	30'3
		...	...	...	...	3'79	...	...	11'36	3'79	...	11'36	...	...	...	...	...	...	45'45	
Hamirpur .	108 {	37'0	...	...	...	703'7	...	...	9'3	55'6	120'4	18'5	...	...	...	...	111'1	...	1,296'3	27'8
				
Orai .	156 {	...	...	...	...	429'5	12'8	...	12'8	12'8	109'0	...	...	...	...	6'4	96'2	...	826'9	25'6
		...	...	...	...	...	...	...	...	6'41	6'41	...	...	...	...	...	...	...	19'23	
Cawnpore .	408 {	...	...	...	...	490'2	...	2'5	7'4	9'8	66'2	88'2	...	...	...	7'4	41'7	...	899'5	22'1
		...	...	...	...	...	...	...	2'45	...	2'45	7'35	...	...	...	2'45	...	...	29'41	
Unao .	310 {	...	...	...	...	77'4	...	3'2	3'2	9'7	3'2	6'5	...	...	...	3'2	67'7	...	322'6	12'9
		...	...	...	...	...	...	...	3'23	...	...	...	...	...	...	3'23	...	...	9'68	
Lucknow, Central. }	1,679 {	...	...	3'0	...	8'3	...	3'6	7'1	3'6	20'3	3'6	1'2	...	6	...	37'5	...	140'0	14'3
		...	...	...	...	60	...	1'19	1'79	1'19	6'55	60	1'19	...	...	...	...	...	19'06	
Lucknow, District. }	645 {	...	...	4'7	...	46'5	...	3'1	7'8	3'1	32'6	...	...	...	...	1'6	74'4	...	328'7	26'4
		...	...	...	...	1'55	...	...	...	...	6'20	...	...	...	...	...	...	...	21'71	
Barabanki .	476 {	...	2'1	...	...	153'4	...	2'1	8'4	10'5	42'0	52'5	...	...	...	2'1	60'9	...	521'0	25'2
		...	2'10	...	...	...	...	2'10	2'10	2'10	2'10	...	...	...	...	...	...	...	21'01	
Gonda .	573 {	...	...	7'0	...	132'6	...	15'7	3'5	14'0	12'2	3'5	...	...	...	73'3	20'9	...	382'2	20'9
		...	...	1'75	...	...	...	10'47	3'49	...	...	...	...	...	...	...	...	...	15'71	
Bahraich .	486 {	...	...	10'3	...	298'4	...	4'1	22'6	22'6	70'0	59'7	...	...	...	67'9	111'1	2'1	897'1	47'3
		...	...	...	...	...	...	...	...	4'12	...	...	...	...	...	...	2'06	2'06	16'46	
Kheri .	347 {	...	...	17'3	...	155'6	...	8'6	8'6	11'5	11'5	20'2	...	...	...	8'6	129'7	...	585'0	20'2
		...	...	...	...	2'88	...	8'65	5'76	2'88	2'88	...	...	...	...	...	...	...	37'46	
Sitapur .	833 {	61'2	...	2'4	...	383'0	2'4	2'4	38'4	4'8	32'4	16'8	...	...	...	2'4	60'0	...	750'3	24'0
		...	...	...	...	...	...	...	4'80	...	3'60	...	...	...	...	...	...	...	14'41	
Hardoi .	495 {	...	...	8'1	...	189'9	...	4'0	8'1	14'1	8'1	26'3	...	...	...	20'2	54'5	...	499'0	24'2
		...	...	2'02	...	2'02	...	4'04	...	2'02	...	...	...	...	...	...	...	...	16'16	
Etawah .	321 {	...	...	...	...	146'4	...	3'1	6'2	81'0	84'1	...	...	...	...	15'6	87'2	...	619'9	18'7
		...	...	...	...	...	...	...	...	...	6'23	...	...	...	...	3'12	...	...	18'69	
Mainpuri .	324 {	9'3	...	...	...	1,481'5	67'9	3'1	24'7	24'7	182'1	80'2	...	...	...	...	101'9	...	2,163'6	46'3
		...	...	...	...	...	...	...	12'35	...	3'09	...	...	...	...	...	...	...	18'52	
Etah .	312 {	...	...	6'4	...	439'1	...	35'3	44'9	35'3	67'3	28'8	...	...	...	35'3	96'2	...	907'1	35'3
		...	...	...	...	...	...	12'82	9'62	...	3'21	...	...	...	...	...	...	...	28'85	
Fatehgarh, Central. }	1,752 {	...	...	...	...	85'6	...	7'4	8'0	14'3	30'3	6'8	...	...	...	1'7	41'7	1'7	265'4	13'1
		...	...	...	...	5'71	...	5'71	1'14	4'00	6'85	2'28	...	...	...	...	...	57	30'82	
Fatehgarh, District. }	350 {	...	...	2'9	...	305'7	...	25'7	14'3	40'0	71'4	28'6	...	...	...	2'9	40'0	...	711'4	22'9
		...	...	...	...	8'57	...	...	5'71	2'86	2'86	...	...	...	...	...	...	...	34'29	
GROUP V.— GANGETIC PLAIN AND CHUTIA NAGPUR.	26,317 {	2'5	3'0	2'6	2	204'8	11'3	8'9	11'7	19'2	86'8	40'2	1	2	0	12'3	74'2	2	660'9	29'0		
		...	1'44	1'9	11	1'56	1'04	3'65	3'12	1'25	5'40	1'44	11	...	...	72	11	08	27'36	
A.																						
Shahjahanpur	406 {	...	...	4'9	...	517'2	...	...	2'5	44'3	27'1	19'7	...	...	...	7'4	123'2	...	963'1	41'0
		...	...	2'46	...	...	...	...	2'46	2'46	2'46	2'46	...	...	...	...	...	...	19'70	
Pilibhit .	47 {	...	...	21'3	...	63'8	21'3	...	...	21'3	42'6	21'3	...	...	...	...	63'8	...	297'9	9'6*
		...	...	...	...	...	...	...	...	...	...	21'28	...	...	...	...	...	...	42'55	
Bareilly Central. }	2,113 {	...	...	9	9	393'8	...	11'8	24'1	8'0	25'6	9'0	...	...	...	9	41'6	...	593'0	34'5
		...	...	...	...	47	...	1'89	9'94	9'95	3'79	...	...	...	...	...	...	...	18'46	

* Worked on the aggregates.

JAILS AND GROUPS.	Average annual strength.	1. ADMISSION RATE.										2. DEATH RATE PER 1,000 OF STRENGTH.										Average number constantly sick per 1,000 of strength.
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Pyrexia of un- certain origin.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, and Slough, and Gangrene.	ALL CAUSES.			
Bareilly, District.	760	...	...	2'6	...	526'3 1'32	...	15'8 2'63	69'7 11'84	22'4 1'32	27'6 1'32	6'6	...	...	...	1'3	89'5	...	877'6 22'37	31'6
Budaun . . .	395	...	...	2'5	...	848'1	...	5'1 2'53	50'6 5'06	22'8	15'2 2'53	22'8 5'05	...	...	...	10'1	68'4	...	1,293'7 22'78	35'4
Aligarh . . .	373	...	...	...	...	487'9	...	8'0	34'9 5'36	21'4	16'1	2'7	2'7 2'68	...	...	5'4	72'4	...	916'9 16'09	32'2
Bulandshahr . . .	260	...	...	3'8	...	1,100'0	...	11'5 3'85	26'0 7'69	61'5	115'4 11'54	92'3 3'85	...	...	...	...	126'9	...	1,788'5 30'77	46'2
Moradabad . . .	405	...	...	4'9 2'47	...	987'7 2'47	...	...	32'1 22'22	24'7	123'5 7'41	49'4	...	...	...	12'3	200'0	...	1,679'0 41'98	37'0
Bijnor . . .	308	...	...	9'7 6'49	...	233'8	...	26'0 9'74	32'5 3'25	6'5	13'0 3'25	3'2	...	...	...	3'2	61'7	...	493'5 29'22	16'2
Dehra Dun . . .	94	...	...	10'6	...	478'7	21'3	31'9 10'64	21'3	21'3	21'3	63'8	...	...	...	10'6	95'7	...	1,000'0 21'28	42'6
Saharanpur . . .	380	...	...	7'9	...	336'8 7'89	...	...	5'3 2'63	10'5	360'5 13'16	57'9 7'89	...	...	...	...	118'4	...	1,192'1 34'21	55'3
Muzaffarnagar . . .	167	65'9	...	...	...	1,203'6	...	6'0	47'9 11'98	65'9	167'7	83'8	...	...	...	65'9	173'7	...	2,389'2 23'95	47'9
Meerut . . .	596	99'0 5'03	...	3'4 1'68	...	273'5 3'36	...	1'7	30'2 10'07	10'1 3'36	95'6 8'39	28'5 3'36	...	...	...	...	75'5 1'68	...	786'9 40'27	26'8
Delhi . . .	498	...	...	4'0 2'01	...	285'1 2'01	...	8'0	46'2 12'05	6'0	58'2 4'02	16'1	2'0 2'01	...	...	2'0	44'2	...	552'2 28'11	30'1
Rohtak . . .	154	...	...	...	...	214'3	...	...	6'5	6'5	58'4	32'5	...	...	...	...	77'9	...	623'4 12'99	19'5
Hissar . . .	186	...	...	...	...	5'4	...	21'5	32'3 5'38	48'4	91'4	26'9	...	...	...	21'5	172'0	...	854'8 5'38	43'0
Karnal . . .	125	...	...	...	...	720'0 8'00	...	...	64'0 24'00	64'0	152'0 16'00	56'0	...	...	...	16'0	88'0	...	1,416'0 48'00	32'0
Ambala . . .	642	...	...	3'0	...	105'9	...	14'0 9'35	21'8 7'79	23'4 1'56	45'2 4'67	54'5 3'12	...	...	...	28'0	154'2	...	574'8 32'71	24'9
B																						
Ludhiana . . .	236	...	...	4'2	...	63'6	8'5	8'5	12'7 4'24	8'5	29'7	4'2	...	...	...	...	46'6	...	262'7 8'47	8'5
Hoshiarpur . . .	65	...	...	...	...	476'9	...	...	...	...	138'5	61'5	...	...	...	...	61'5	...	892'3	15'4
Jullundur . . .	261	...	...	...	...	103'4	...	...	15'3 7'66	11'5	46'0 3'83	23'0	3'8	3'8	...	19'2	118'8	...	536'4 15'33	19'2
Ferozepore . . .	396	...	...	...	2'5	136'4	65'7	12'6 7'58	35'4 2'53	65'7	17'7	80'8	...	...	...	40'4	103'5	...	866'2 12'63	35'4
Amritsar . . .	131	...	...	...	...	366'4	...	...	7'6 7'63	53'4	15'3	22'9	...	...	...	...	167'9	...	1,038'2 22'90	22'9
Lahore, Central	1,565	16'6	...	...	1'9	269'6	33'9	12'8 8'31	27'5 10'22	37'7 1'92	70'3 7'03	13'4 2'56	...	...	...	13'4 6'4	86'9	...	698'4 36'42	39'6
„ District . . .	475	...	4'2 2'11	2'1	4'2 2'11	82'1	14'7	12'6 8'42	10'5 4'21	10'5	37'9 8'42	35'8	...	...	...	2'1	14'7	...	423'2 27'37	16'8
„ Female . . .	171	...	...	...	...	140'4	52'6	23'4 29'24	...	17'5 5'85	64'3 11'70	11'7	...	11'7	...	11'7	23'4	...	631'6 46'78	129'2
Gurdaspur . . .	191	...	...	...	...	73'3 5'24	...	...	...	5'2	15'7	20'9 5'24	...	...	...	10'5	57'6	...	293'2 20'94	10'5
Gujranwala . . .	301	...	...	...	...	285'7	...	10'0 6'64	33'2	6'6	19'9 3'32	23'3	...	...	...	19'9	53'2	...	598'0 19'93	13'3
Sialkot . . .	379	...	...	2'6	5'3	364'1	...	2'6	2'6	18'5	81'8	13'2	...	...	...	15'8	55'4	...	683'4 5'28	18'5
Gujrat . . .	134	...	...	...	...	567'2	...	14'9	14'9	7'5	89'6	67'2	...	...	...	7'5	171'6	...	1,171'6	22'4
Jhelum . . .	223	4'5	...	...	...	148'0	4'5	17'9 4'48	13'5 8'97	13'5	130'0	35'9	...	...	...	13'5	85'2	...	695'1 3'39	22'4
Rawalpindi . . .	742	...	...	1'3	2'7 1'35	91'6	...	2'7 1'35	8'1 1'35	13'5 1'35	49'9 8'09	16'2	...	...	...	25'6 2'70	43'1	...	347'7 20'21	14'8
Campbellpur . . .	170	...	...	...	...	158'8	5'9	...	5'9	...	129'4	41'2	...	...	...	...	117'6	...	735'1 11'76	17'6
GROUP VI.— UPPER SUB-HIMA- LAYA.	13,349	7'3 2'22	1'1 0'07	2'1 45	9 22	351'6 82	7'6	9'3 1'52	25'7 7'27	21'4 97	62'0 4'49	25'8 1'27	2 15	2	...	10'3 2'22	82'3 0'07	...	771'4 24'72	30'3		

PRISONERS, 1908.

TABLE XLII—continued.

RATIOS of FAILS, GROUPS, and ADMINISTRATIONS.

For actuals, see table XLII

JAILS AND GROUPS.	Average annual strength.	1. ADMISSION RATE.										2. DEATH RATE PER 1,000 OF STRENGTH.										Average number constantly sick per 1,000 of strength.
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Pyrexia of uncertain origin.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.			
A																						
Peshawar . . .	591 {	...	...	...	...	1,247'0	...	3'4	35'5	35'5	79'5	...	...	...	5'1	15'2	211'5	...	1,895'1	54'1
Kohat . . .	116 {	...	...	...	...	129'3	...	...	51'7	34'5	43'1	17'2	...	...	...	...	60'3	...	491'4	25'9
Bannu . . .	152 {	13'2	...	...	...	46'1	...	...	6'6	19'7	85'5	59'2	...	...	...	32'9	72'4	...	572'4	25'6
Shahpur . . .	208 {	...	...	...	...	'0	...	...	9'6	9'6	81'7	105'8	...	...	...	4'8	96'2	...	903'8	18'3
Mianwali . . .	216 {	...	...	...	...	46'3	9'3	...	...	27'8	9'3	13'9	...	...	...	...	97'2	...	425'9	18'5
Lyallpur . . .	298 {	...	...	6'7	...	208'1	3'4	3'4	3'4	6'7	3'4	13'4	...	...	...	...	40'3	...	423'5	18'1
Jhang . . .	188 {	...	...	...	...	276'6	16'0	...	10'6	26'6	42'6	16'0	...	...	...	...	122'3	...	776'6	18'0
Montgomery, Central.	1,967 {	...	1'5	1'5	...	75'2	'5	31'5	7'1	35'6	49'3	60'0	...	...	...	15'3	26'4	...	430'1	33'5
Mooltan, Central .	1,062 {	5'6	...	...	...	68'7	...	12'2	8'5	43'3	1'9	9'4	...	4'7	...	3'8	109'2	...	444'4	22'5
Mooltan, District .	700 {	...	...	4'3	1'4	100'0	...	18'6	22'9	34'3	28'6	18'6	...	...	1'4	18'6	182'9	...	644'3	25'7
Dera Ismail Khan .	391 {	...	...	...	2'6	345'3	...	17'9	10'2	33'2	92'1	28'1	...	20'5	2'6	12'8	153'5	...	879'8	28'1
Dera Ghazi Khan .	224 {	...	...	...	...	116'1	13'4	...	4'5	35'7	89'3	49'1	...	...	...	4'5	111'6	...	875'0	22'3
B																						
Sibi . . .	42 {	...	...	...	...	333'3	...	...	23'8	...	47'6	...	...	...	...	...	95'2	...	690'5	23'8
C																						
Sukkur . . .	385 {	...	...	...	...	67'5	...	...	23'4	31'2	18'2	5'2	...	...	5'2	...	10'4	...	223'4	37'2
Sind Gang . . .	459 {	...	...	...	...	213'5	...	...	95'9	76'3	63'2	54'5	...	2'2	4'4	4'4	124'2	...	836'6	37'8
Hyderabad, Central.	910 {	...	1'1	...	2'2	144'0	1'1	3'3	61'5	100'0	64'8	17'6	...	2'2	25'3	17'6	27'5	...	638'5	23'1		
Karachi . . .	384 {	...	...	...	...	10'4	62'5	7'8	2'6	23'4	80'7	28'6	...	...	5'2	13'0	44'4	...	484'4	13'2
GROUP VII.— N.-W. FRONTIER, INDUS VALLEY, AND N.-W. RAJ- PUTANA.	8,293 {	1'0	'5	1'0	'5	203'9	4'2	12'5	22'7	42'3	47'8	31'4	...	1'9	4'1	11'0	85'3	...	650'3	27'9		
A																						
Rajkot . . .	80 {	...	...	...	...	12'5	...	...	...	25'0	25'0	100'0	...	...	...	...	37'5	...	337'5	37'6
Ahmedabad, Central.	918 {	...	...	...	...	46'8	...	6'5	8'7	21'8	12'0	18'5	...	...	1'1	15'3	70'8	...	356'2	17'4
B																						
Ajmer . . .	359 {	...	...	...	...	125'3	...	2'8	5'6	5'6	13'9	13'9	...	...	...	2'8	66'9	...	342'6	13'9
Muttra . . .	270 {	...	3'7	...	...	1,066'7	...	7'4	33'3	22'2	159'3	88'9	...	...	...	...	245'1	...	1,959'3	85'2
Agra, Central .	2,246 {	...	...	'4	2'2	162'1	...	11'1	18'3	45'9	10'7	14'7	...	...	...	10'2	68'1	...	506'2	45'9
„ District .	504 {	...	...	...	...	111'1	...	4'0	35'7	29'8	31'7	27'8	...	...	...	9'9	97'2	...	597'2	31'7
Jhansi . . .	233 {	...	...	...	...	390'6	...	...	47'2	12'9	77'3	150'2	...	4'3	4'3	4'3	85'8	...	1,025'8	25'8
Lalitpur . . .	56 {	...	...	...	...	250'0	...	...	...	35'7	17'9	17'9	...	...	...	53'6	...	...	446'4	17'9
GROUP VIII.— S. E. RAJPUTANA, CENTRAL INDIA, AND GUJARAT.	4,666 {	...	'2	'2	1'1	193'3	...	7'7	19'1	32'8	25'7	29'4	...	'2	'4	10'1	81'7	...	580'4	37'0		

JAILS AND GROUPS.	Average annual strength.	1. ADMISSION RATE.										2. DEATH RATE, PER 1,000 OF STRENGTH.										Average number constantly sick per 1,000 of strength.
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Pyrexia of uncertain origin.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscesses.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.			
A																						
Damoh	86 {	...	...	...	...	348'8	...	...	23'3 11'63	11'6	69'8	69'8	...	...	...	11'6	186'0	...	1,023'3 11'63	23'3
Saugor	140 {	...	...	7'1	...	371'4	...	7'1 7'14	14'3	71'4 7'14	178'6	121'4	...	...	...	14'3	100'0	...	1,314'3 50'00	42'9
Jubbulpore, Central.	906 {	...	...	...	...	211'9	...	5'5	2'2	19'9 1'10	9'9	3'3	...	...	1'1	...	47'5	...	423'8 4'42	12'1
Narsinghpur	75 {	...	...	...	...	40'0	...	13'3 13'33	...	...	40'0 26'67	13'3 13'33	...	...	...	13'3	13'3	...	186'7 53'33	13'3
Mandla	76 {	...	...	18'2 1'16	...	65'8	...	...	...	52'6	13'2 13'16	...	...	...	...	...	92'1	...	368'4 39'47	13'2
Bilaspur	104 {	...	...	...	...	96'2	9'6	...	...	...	163'5 9'62	9'6	...	...	...	9'6	28'8	9'6 9'62	528'8 19'23	19'2
Sambalpur	223 {	...	26'9 22'42	...	9'0 4'48	345'3	...	...	9'0	31'4 4'48	237'7 13'45	71'7	...	...	...	4'5	62'8	...	1,067'3 58'30	26'9
Raipur, Central.	578 {	10'4	...	...	1'7 1'73	224'9 5'19	13'8	6'9 5'19	8'7 3'46	29'4 3'46	74'4 13'84	45'0 1'73	...	...	...	57'1	110'7	...	892'7 48'44	39'8
Balaghat	65 {	...	...	...	...	123'1	15'4	138'5 30'77	...	61'5	61'5	30'8	...	...	...	...	15'4	...	569'2 30'77	30'8
Seoni	67 {	...	...	14'9 14'93	...	14'9	...	...	...	...	104'5	...	...	...	...	...	149'3	...	552'2 29'85	14'9
Chhindwara	61 {	...	...	...	...	82'0	...	16'4	16'4	...	16'4	16'4	...	...	...	16'4	98'4	...	393'4 49'18	16'4
Hoshangabad	74 {	...	...	...	...	148'6	...	27'0 13'51	...	...	81'1 67'57	175'7	...	...	...	13'5	54'1	...	648'6 81'08	13'5
Nimar	69 {	...	...	...	...	87'0	...	...	...	...	43'5	202'9	...	...	...	...	87'0	...	724'6	14'5
Betul	55 {	...	...	...	...	72'7	...	...	...	54'5	18'2 18'18	18'2	...	...	...	54'5	72'7	18'2	418'2 36'36	18'2
Nagpur, Central.	985 {	1'0	...	...	...	468'0 1'02	33'5	15'2 7'11	3'0	15'2	36'5 2'03	10'2	...	...	...	2'0	52'8	...	805'1 15'23	22'3
Bhandara	54 {	...	...	...	...	...	...	...	...	...	18'5	...	...	...	...	...	...	...	37'0	3'1*
Wardha	57 {	...	...	...	...	52'6	17'5	...	...	...	...	35'1	...	...	...	...	17'5	17'5	228'1 17'54	8'2*
Chanda	66 {	...	...	...	...	121'2	...	...	...	15'2	15'2	30'3	...	...	...	...	15'2	...	242'4 15'15	15'2
B																						
Secunderabad	85 {	...	...	...	...	200'0	...	...	23'5 11'76	...	129'4 11'76	...	...	...	...	11'8	94'1	...	917'6 23'53	23'5
Yeotmal	104 {	...	...	...	...	105'8	...	9'6 9'62	...	48'1 9'62	19'2	86'5	...	...	...	9'6	28'8	...	394'2 19'23	9'6
Amraoti	169 {	59'2	...	...	...	17'8	...	...	23'7 5'92	...	35'5	5'9	...	...	...	5'9	53'3	...	390'5 11'83	17'8
Akola	166 {	12'0 6'02	...	...	...	90'4	...	6'0	...	6'0 6'02	42'2 6'02	24'1	...	...	...	6'0	96'4	...	58'3 24'10	24'1
Buldana	56 {	...	...	...	...	53'6	...	...	1'9	...	35'7	17'9	...	...	...	35'7	...	...	375'0	8'7*
Dhulia	405 {	...	...	...	...	69'1	...	7'4 7'41	...	4'9	...	9'9	...	...	...	2'5 2'47	37'0 2'47	...	288'9 12'35	19'8
Yerrowda, Central.	1,555 {	...	...	1'3	...	174'9 1'29	...	13'5 5'79	'6 '64	22'5 '64	49'5	115'1	...	10'3	...	16'1	139'5	...	980'7 12'86	67'5
Bijapur	334 {	...	...	...	...	116'8	65'9	3'0	3'0 2'99	92'8 14'97	62'9	9'0	...	...	...	...	44'9	...	751'5 20'96	24'0
Deccan Gang	581 {	...	...	...	1'7	144'6	...	...	8'6 1'72	44'8	29'3	58'5	1'7	...	3'4 1'72	3'4	308'1	...	1,067'1 15'49	37'9
Dharwar	361 {	...	...	...	...	307'5	5'5	2'8	2'8	2'8	66'5	63'7	...	...	2'8	2'8	47'1	...	717'5 2'77	13'9
GROUP IX.—DECCAN.	7,557 {	2'5 '13	'8 '66	'7 '26	'5 '26	210'3 '79	9'0	8'7 3'71	4'2 1'06	22'8 1'72	50'8 3'31	49'4 '26	'1	2'1	'5 '13	10'7 '13	96'1 '13	'4 '26	744'3 19'32	31'8		

* Worked on the aggregates.

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TABLE XLII—continued.

RATIOS of FAILS, GROUPS, and ADMINISTRATIONS.

For actuals see Table XLVII.

JAILS AND GROUPS.	Average annual strength.	1. ADMISSION RATE.										2. DEATH RATE PER 1,000 OF STRENGTH.										Average number constantly sick per 1,000 of strength.
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Pyrexia of uncertain origin.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.			
Thana	583 {	...	...	3'4	...	130'4 1'72	...	5'1 3'43	5'1	82'3 1'72	51'5	65'2 1'72	...	...	...	10'3	70'3	...	729'0 15'44	32'6
Bombay, Common .	403 {	...	...	...	...	119'1	...	12'4 4'96	9'9 4'96	24'8	17'4	27'3	...	...	...	22'3 2'48	20'8	...	364'8 14'89	14'9
Bombay, House of Correction.	216 {	...	...	4'6	...	13'9	...	27'8 9'26	4'6	13'9	41'7	4'6 4'63	...	...	...	9'3	23'1	...	231'5 23'15	18'5
Ratnagiri . . .	93 {	...	...	...	...	43'0	10'8	...	...	43'0	21'5	...	...	10'8	...	...	10'8	...	333'3 21'51	21'5
Karwar	198 {	131'3	25'3	10'1	60'6	212'1 5'05	30'5	...	5'1	15'2	...	782'8 25'25	30'5	
Mangalore . . .	94 {	...	...	...	31'9 10'64	31'9	10'6	...	...	...	170'2	...	...	...	...	...	...	...	287'2 21'28	10'6
Cannanore, Central .	813 {	...	...	...	7'4 5'69	125'5 6'15	16'0	4'9 3'69	7'4 1'23	51'7	105'8 1'23	20'9	...	...	...	32'0	28'3	...	537'5 17'22	27'1
GROUP X.— WESTERN COAST.	2,400 {	...	...	1'2	3'8 1'67	109'2 2'50	8'3	7'5 3'75	6'7 1'25	49'6 '42	80'0 '83	30'4 '83	...	'8	...	17'9 '42	35'4	...	530'0 17'92	24'6
A																						
Bellary, Central .	722 {	...	...	1'4	...	103'9	...	12'5	9'7 2'77	6'9 1'39	55'4 6'93	8'3	...	...	...	9'7 1'39	52'6	...	601'1 20'78	34'6
Salem, Central .	708 {	...	...	...	8'5 1'41	77'7	2'8	2'8 1'41	11'3 2'82	12'7	72'0 1'41	...	...	...	...	...	7'1	...	274'0 8'47	12'7
Coimbatore, Central .	1,282 {	...	...	...	...	19'5 '78	'8	3'9 3'90	9'4 1'56	6'2	22'6 3'12	...	...	...	1'6	6'2	21'1	...	195'8 13'26	10'1
B																						
Palamcottah . . .	388 {	...	5'2 2'58	...	...	20'6	...	2'6	7'7 2'58	7'7 2'58	41'2	...	...	...	...	20'6	36'1	...	229'4 20'62	20'6
Madura	471 {	...	...	...	...	25'5 2'12	23'4	6'4 4'25	4'2	34'0	25'5 4'25	...	...	...	...	14'9	17'0	...	390'7 19'11	23'4
Trichinopoly, Central.	1,091 {	...	...	...	...	29'3	5'5	16'5 2'75	'9	11'0	76'1 6'42	...	...	...	...	7'3 '92	21'1	...	298'8 16'50	20'2
Tanjore	372 {	...	...	2'7	...	...	...	5'4	2'7 2'69	8'1	8'1	5'4	...	...	...	...	24'2	...	104'8 8'06	10'8
Cuddalore . . .	389 {	2'6	...	...	...	20'6	...	2'6 2'57	...	41'1	100'3 7'71	5'1	...	...	...	12'9	28'3	...	388'2 10'28	10'3
Vellore, Central .	1,345 {	...	...	...	...	14'9	58'7	2'2 2'97	11'2 2'97	32'7 '74	14'1 2'23	16'4	...	...	...	40'9 2'23	72'9	...	545'0 17'84	23'0
Madras, Civil . .	35 {	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	114'3	5'00
Madras Peni- tentiary, Central.	949 {	...	2'1 2'11	...	2'1 1'05	11'6	21'1	11'6 3'16	6'3	15'8	2'1	...	...	...	...	11'6	10'5	...	241'3 12'64	12'6
C																						
Rajahmundry, Central.	1,064 {	...	60'2 22'56	...	...	69'5	8'5	10'3 8'46	9'4 1'88	26'3 2'82	148'5 17'86	...	...	...	...	27'3 1'88	21'6	...	600'6 62'03	30'1
Vizagapatam . .	647 {	...	35'6 7	...	3'1 3'09	505'4 3'09	...	12'4 4'64	23'2 4'64	17'0 1'55	145'3 21'64	38'6	...	...	...	71'1	10'8	...	1,225'7 72'64	69'6
Berhampur . . .	173 {	...	85'0 104'05	...	11'6 5'78	109'8	5'8	23'1	11'6 1'56	46'2 5'78	115'6 28'90	...	...	...	...	11'6	...	...	606'9 184'97	17'3
GROUP XI.— SOUTHERN INDIA.	9,636 {	'1	13'0 5'81	'2	1'2 52	69'1 '42	13'4	8'1 3'22	8'5 1'97	18'1 '83	58'7 6'54	5'9	...	...	...	'2	19'3 '73	28'3	432'9 27'09	22'8

* Worked on the aggregates.

JAILS, GROUPS AND ADMINIS- TRATIONS.	Average annual strength.	1. ADMISSION RATE.							2. DEATH RATE PER 1,000 OF STRENGTH.														Average number constantly sick per 1,000 of strength.
		Influenza.	Cholera.	Small-pox.	Enteric fever.	Malaria.	Pyrexia of un- certain origin.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.				
Aijal	9	...	...	...	...	555'6	...	...	...	111'1	444'4	666'7	...	...	...	111'1	111'1	...	2,777'8	111'1
Kohima	18	...	...	...	...	166'7	...	...	...	...	55'6	...	...	...	...	...	55'6	...	444'4	12'9*
Shillong	51	...	...	...	...	176'5	...	19'6	19'6	78'4	215'7	58'8	...	19'6	...	...	98'0	...	843'1	39'2
		...	...	...	...	...	...	19'61	...	...	19'61	...	...	...	...	...	...	...	39'22	
Darjeeling	108	...	...	...	...	157'4	...	46'3	...	206'3	64'8	55'6	...	...	...	27'8	55'6	...	953'7	55'6
		...	...	...	...	9'26	...	185'2	...	...	9'26	...	...	...	...	...	...	...	37'04	
Almora	82	...	...	...	...	85'4	...	...	24'4	48'8	134'1	61'0	...	...	...	...	24'4	...	524'4	12'2
		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	12'2	
Pauri	13	...	...	...	...	461'5	...	76'9	...	...	230'8	76'9	...	...	...	...	76'9	...	92'31	76'9
		...	...	...	...	...	...	76'92	...	...	76'92	...	...	...	...	...	...	...	153'85	
Naini Tal	41	...	...	...	...	634'1	...	...	24'4	24'4	...	317'1	...	...	...	122'0	73'2	...	1,634'1	24'4
		...	...	...	...	...	...	...	...	...	...	24'39	...	...	...	...	...	...	73'17	
Simla	11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	90'9	...	...	90'9	2'9*
					
Abbottabad	95	...	...	...	...	115'8	...	...	10'5	...	21'1	21'1	...	...	...	21'1	63'2	...	368'4	10'5
					
Quetta	51	...	...	...	...	607'8	...	...	19'6	58'8	78'4	78'4	...	78'4	...	...	411'8	...	2,745'1	58'8
					
Mercara	92	...	...	...	...	43'5	...	...	43'5	32'6	43'5	10'9	...	...	...	10'9	32'6	...	315'2	10'9
		...	...	...	...	...	...	...	21'74	10'87	...	...	...	...	...	...	...	...	65'22	
Russellkonda	95	...	284'2	...	...	42'1	...	...	10'5	21'1	147'4	...	...	...	...	52'6	84'2	...	757'9	10'5
		...	200'00	...	...	21'05	...	...	...	...	115'79	...	...	...	...	31'58	...	...	421'05	
GROUP XII.—HILLS.	666	...	40'5	...	...	184'7	...	10'5	16'5	75'1	91'6	61'6	...	6'0	1'5	27'0	85'6	...	867'9	26'8	
		...	28'53	...	...	4'50	...	6'01	3'00	1'50	21'02	1'50	...	...	...	4'50	...	...	87'09	
EXTRA INDIA																							
Aden	65	...	...	...	...	46'2	...	...	...	...	30'8	15'4	...	15'4	...	...	30'8	...	184'6	15'4
					
INDIA (a)	1,01,336	4'2	3'3	1'2	1'1	197'7	9'4	9'4	12'4	23'3	76'9	37'6	1'1	6	7	11'8	65'2	1'1	645'9	28'7			
		04	1'68	15	36	1'04	02	3'76	3'24	1'03	4'67	94	10	02	03	55	08	04	24'17				
BURMA	13,871	4	1'2	...	1'5	35'6	16'4	7'6	3'6	9'2	19'4	11'6	1'1	1	2	1'9	39'1	...	276'8	15'5			
		...	79	...	22	50	...	3'39	1'23	43	1'37	14	22	07	...	14	...	...	13'27		
EASTERN BENGAL AND ASSAM.	7,118	32'7	2'1	3	4'2	283'4	5'9	10'5	11'5	26'8	201'3	72'5	1'1	...	8	18'8	43'0	1'1	917'1	36'6			
		...	1'97	14	1'40	1'26	...	4'50	3'23	1'97	8'43	1'26	...	...	14	1'26	14	...	31'89		
BENGAL	15,565	2	8'4	1'3	1'0	247'7	3'4	12'8	8'5	27'8	181'7	95'8	1'1	6	1'1	13'7	57'4	1'1	930'0	38'4			
		...	3'98	06	32	84	13	5'01	2'31	45	8'54	1'80	13	...	...	96	06	...	31'61		
UNITED PROVINCES	28,308	4'7	6	2'6	3	281'3	9'9	8'2	18'2	21'4	46'6	23'1	1'1	2	1	10'2	84'1	1'1	678'9	30'9			
		11	21	32	07	1'55	...	2'79	4'91	1'38	3'89	1'27	11	04	...	46	14	07	24'0				
PUNJAB	11,919	2'8	4	1'3	9	164'4	9'1	13'0	15'9	27'5	49'2	32'0	2	7	1	13'2	81'5	...	581'2	26'1			
		...	08	17	34	42	...	5'87	4'53	84	3'78	1'09	08	...	...	42	...	...	23'49	
N.-W. FRONTIER PROVINCE	1,345	1'5	...	...	7	672'9	...	6'7	24'5	30'5	76'6	17'8	...	5'9	3'0	15'6	155'4	...	1,221'6	37'1	
		...	...	...	74	1'49	...	74	4'46	2'23	74	...	...	...	...	...	...	...	15'61	
CENTRAL PROVINCES.	4,013	4'7	...	7	2	239'5	11'0	10'0	5'0	17'4	45'1	28'4	...	...	2	12'5	65'0	7	632'2	21'0	
		25	...	50	25	1'00	...	3'99	1'00	1'50	5'23	50	...	...	...	...	...	50	22'18	
BOMBAY	7,930	...	1'1	6	4	125'7	6'9	6'6	17'2	43'0	46'7	47'8	1'1	2'8	4'2	10'5	85'5	...	653'6	32'5			
		...	13	...	1	1'26	...	3'03	3'28	1'13	88	63	...	...	25	25	25	...	18'16		
MADRAS	10,638	1	14'3	2	2'0	72'9	13'4	7'7	8'4	20'9	64'1	7'0	...	...	2	20'4	28'6	...	442'5	22'9	
		...	7'05	...	8	1'03	...	3'20	1'88	75	7'05	...	09	...	...	94	...	...	29'80	
ANDAMANS	14,067	...	...	...	2	856'5	9'5	10'5	10'2	45'1	110'8	35'5	...	2	2'2	4	99'9	3	1,438'5	78'6
		...	...	...	...	2'20	...	7'11	4'12	1'07	4'34	71	...	07	...	...	...	14	26'66	
INDIA (b)	115,403	3'7	2'9	1'1	1'0	278'0	9'4	9'5	12'1	26'0	81'1	37'3	1'1	5	9	10'4	69'4	1	742'5	34'7			
		03	1'47	13	31	1'18	02	4'17	3'34	1'03	4'63	91	09	03	03	49	07	05	24'47				

*Worked on the aggregates.
(a) Excluding Andamans.
(b) Including Andamans.

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TABLE XLIII.

ACTUALS of FAILS, GROUPS, and ADMINISTRATIONS on which the ratios in Tables XL—XLII have been calculated.

JAILS AND GROUPS.	Average annual strength.	1. ADMISSIONS.														2. DEATHS.										Average number constantly sick per 1,000 of strength.
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Pyrexia of uncertain origin.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.	Tænia.	Ascaris lumbricoides.	Dracunculus Medinensis.	Strongylus duodenalis.			
Mergui . .	79 {	...	...	...	...	2	6	...	...	...	15	3	...	...	2	1	...	...	34	...	...	...	...	...	2
Tavoy . .	110 {	...	...	2	...	1	...	...	...	1	1	1	...	...	...	...	...	...	8	...	...	...	...	...	1
Moulmein . .	579 {	...	...	1	...	31	...	3	2	10	17	8	...	...	...	...	23	...	210	...	...	...	...	...	11
Shwegyin . .	161 {	...	...	...	...	6	...	...	...	1	...	...	...	...	...	3	13	...	44	...	...	...	...	...	2
Toungoo . .	572 {	6	...	1	...	8	5	4	1	9	8	3	...	...	...	...	11	...	149	...	...	...	...	...	17
Rangoon, Central (Europeans) }	17 {	...	...	...	...	2	...	...	...	...	...	2	...	...	...	...	...	...	6	...	...	...	...	...	...
Rangoon, Central (Natives). }	2,485 {	...	...	1	...	86	137	25	4	31	33	70	1	...	...	1	137	...	888	...	...	...	...	...	46
Maubin . .	151 {	...	...	...	...	11	...	...	...	...	4	4	...	...	...	1	3	...	86	...	...	...	...	...	3
Myaungmya . .	847 {	...	2	...	...	17	...	5	1	3	3	3	1	...	...	2	19	...	121	...	...	...	...	...	7
Bassein, Central }	1,102 {	...	1	2	...	27	...	12	1	6	22	1	...	...	...	1	31	...	315	...	...	2	...	...	22
Insein, Central. }	2,304 {	...	...	...	...	103	10	18	4	16	...	...	...	1	...	1	85	...	435	...	...	...	...	...	23
Henzada . .	412 {	...	...	1	...	1	...	2	...	2	...	...	...	...	...	1	11	...	68	...	...	...	...	...	3
Myanaung . .	79 {	...	...	...	...	1	...	...	1	...	1	...	...	...	...	1	...	...	15	...	...	...	...	...	1
Sandoway . .	84 {	...	...	...	...	...	...	...	1	1	1	...	...	...	...	1	6	...	13	...	...	...	...	...	1
Kyaukpyu . .	145 {	...	...	...	...	18	...	2	1	4	17	18	...	...	...	...	14	...	115	...	...	...	...	...	4
Akyab . .	415 {	...	...	...	...	5	2	1	3	5	12	...	...	...	1	...	6	...	74	...	...	...	3	...	4
GROUP I.—BURMA COAST AND BAY ISLANDS. }	9,542 {	6	3	8	...	319	160	72	19	89	134	113	2	1	3	13	359	...	2,581	...	...	...	5	...	147
Paungde . .	165 {	...	4	...	...	6	...	2	1	1	7	...	...	...	...	...	2	...	44	...	...	...	...	...	4
Prome . .	379 {	...	10	...	...	33	...	3	5	5	4	10	...	...	...	3	56	...	206	...	...	...	...	...	9
Thayetmyo, Central. }	917 {	...	...	...	...	17	2	11	7	6	5	4	...	...	...	1	9	...	158	...	...	...	1	...	7
Magwe . .	187 {	...	...	...	...	11	...	...	...	1	...	...	...	...	...	1	1	...	25	...	...	...	...	...	1
Yamethin . .	96 {	...	...	...	...	3	...	...	...	3	3	...	...	...	...	...	2	...	20	...	...	...	...	...	2
Meiktila . .	83 {	...	...	...	...	1	...	...	...	...	1	...	...	...	...	1	...	...	9	...	...	...	...	...	...
Pagan . .	53 {	...	...	...	...	2	...	2	...	1	1	1	...	...	...	...	5	...	21	...	...	...	...	...	1
Myingyan, Central. }	947 {	...	...	9	...	13	14	12	8	11	96	23	...	...	...	4	32	...	305	...	...	...	...	...	22
Mandalay, Central. }	900 {	...	...	1	...	60	36	3	6	10	16	4	...	...	...	2	47	...	317	...	1	...	...	...	13
Monywa . .	86 {	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	3	...	16	...	...	...	...	...	1
Shwebo . .	225 {	...	...	3	...	5	13	...	1	1	...	...	...	...	...	...	16	...	70	...	...	...	...	...	4
Mogok . .	71 {	...	...	...	...	3	...	1	...	...	...	...	...	...	...	...	1	...	7	...	...	...	...	...	1
Bhamo . .	76 {	...	...	...	...	13	2	...	2	...	1	...	...	...	...	1	5	...	34	...	...	...	...	...	1
Katha . .	76 {	...	...	...	...	1	...	...	1	...	...	5	...	...	...	...	1	...	11	...	...	...	...	...	1
Kindat . .	58 {	...	...	...	...	7	...	...	...	...	1	...	...	...	...	1	4	...	16	...	...	...	...	...	1
GROUP II.—BURMA INLAND. }	4,329 {	...	14	13	...	175	68	34	31	39	135	48	...	...	...	14	184	...	1,259	...	1	...	...	...	68

JAILS AND GROUPS.	Average annual strength.	1. ADMISSIONS.										2. DEATHS.										Average number constantly sick.		
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Pyrexia of un- certain origin.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.	Tænia.	Ascaris lumbricoides.		Dracunculus Medinensis.	Strongylus duo- denalis.	Other Entozoa.
Cachar . . .	71 {	...	1	...	...	31	...	...	4	1	4	6	...	...	...	2	...	58	...	...	...	...	...	1
Sibsagar. . .	73 {	...	...	...	...	19	...	...	...	2	16	5	...	...	...	8	...	59	...	...	...	...	...	2
Dibrugarh . . .	104 {	...	...	...	...	129	...	1	2	7	2	11	...	...	6	3	...	175	...	...	...	...	...	4
Tezpur . . .	267 {	...	...	...	...	31	...	2	...	4	2	4	...	...	2	11	...	79	...	...	...	4	...	3
Nowgong . . .	54 {	...	...	...	...	...	...	...	...	1	1	1	...	...	...	2	...	15	...	...	...	...	...	1
Gauhati . . .	308 {	...	3	1	...	89	...	1	1	4	22	55	...	...	5	18	...	256	...	...	...	...	...	11
Dhubri . . .	37 {	...	...	...	...	40	...	...	...	1	15	11	...	...	2	...	...	99	...	...	...	...	...	2
Sylhet . . .	618 {	...	...	...	...	622	...	2	5	8	78	49	...	...	16	38	...	1,003	...	1	...	...	...	17
GROUP III.— ASSAM.	1,532 {	...	4	1	...	961	...	6	12	28	140	142	...	...	31	82	...	1,744	...	1	...	4	...	41
Mymensingh . . .	580 {	15	7	...	2	159	...	4	5	19	218	117	...	...	1	21	14	742	...	...	...	...	...	28
Dacca, Central . . .	1,270 {	208	...	...	...	188	...	19	13	36	298	116	1	...	21	70	...	1,190	...	...	...	...	...	70
Tippera . . .	428 {	...	...	...	...	51	...	3	3	...	57	...	...	2	6	15	...	201	...	...	...	...	...	10
Chittagong . . .	226 {	...	...	...	...	21	...	2	4	7	38	1	...	...	...	12	...	160	...	...	...	...	...	6
Noakhali . . .	178 {	...	...	...	...	27	...	...	...	...	135	...	...	...	1	1	...	177	...	...	...	...	...	6
Bakarganj . . .	529 {	...	...	...	...	78	...	5	20	56	20	16	...	...	21	27	...	400	...	...	...	...	...	12
Khulna . . .	64 {	...	...	...	...	58	...	...	...	4	15	5	...	2	1	6	...	122	...	...	...	...	...	4
Jessore . . .	401 {	...	...	...	...	184	21	5	7	16	254	27	...	...	14	38	...	673	...	...	...	...	...	26
Baraset . . .	118 {	...	...	...	...	91	...	...	...	1	80	30	...	...	2	5	...	286	1	...	...	...	...	8
Presidency, Central (Europeans)	35 {	1	...	...	...	11	...	...	2	...	...	4	...	...	...	3	...	41	...	...	...	...	...	2
Presidency, Central (Natives)	1,180 {	...	...	1	...	316	...	13	1	17	145	126	...	14	19	26	...	966	2	...	...	...	...	43
Alipore, Central . . .	1,903 {	...	2	1	...	663	3	43	9	56	217	210	...	3	10	117	...	1,730	1	...	...	...	...	88
„ , Juvenile . . .	23 {	...	...	...	...	3	...	...	...	1	4	...	...	...	...	...	...	15	...	1	...	...	...	...
Howrah . . .	76 {	...	...	...	...	14	1	1	...	1	41	2	...	...	1	2	...	79	...	...	...	...	...	3
Hooghly. . .	358 {	...	...	...	...	101	...	8	6	8	22	89	...	...	3	51	...	423	1	...	...	...	...	13
Burdwan . . .	199 {	...	...	1	...	93	...	2	6	9	44	17	...	...	5	10	...	225	...	...	...	...	...	9
Krishnagar . . .	210 {	...	2	10	...	63	2	2	2	9	25	31	...	...	18	18	...	399	...	10	...	...	...	11
Faridpur . . .	360 {	10	...	...	...	254	...	6	4	15	99	47	...	...	12	30	...	642	...	...	...	...	...	17
Pabna . . .	199 {	...	...	...	...	16	...	...	1	...	...	1	...	...	...	3	...	27	...	...	...	...	...	1
Murshidabad . . .	300 {	...	...	...	...	74	...	1	1	5	12	7	...	...	4	9	...	193	...	...	...	...	...	10
Rajshahi, Central.	803 {	...	4	1	27	78	...	18	3	10	198	3	...	1	1	21	...	440	2	...	...	1	...	31
Bogra . . .	150 {	25	...	1	...	2	14	4	2	3	...	68	3
Malda . . .	123 {	23	42	...	1	3	17	28	4	5	...	146	3
Dinajpur . . .	299 {	1	...	14	...	7	6	3	27	22	...	1	8	8	...	134	8

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TABLE XLIII—continued.

ACTUALS of JAILS, GROUPS, and ADMINISTRATIONS on which the ratios in Tables XL—XLII have been calculated.

JAILS AND GROUPS.	Average annual strength.	1. ADMISSIONS.										2. DEATHS.										Average number constantly sick.		
		Influenza.	Cholera.	Small-pox. Enteric Fever.	Malaria.	Pyrexia of uncer- tain origin.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, and Slough, and Gangrene.	ALL CAUSES.	Tænia.	Ascaris lumbricoides.	Dracunculus Medinensis.		Strongylus duo- denalis.	Other Entozoa.
Rangpur . . .	236 {	...	...	...	99	...	2	8	5	146	...	...	...	1	5	...	305	...	...	...	...	...	18
Jalpaiguri . . .	127 {	...	...	...	6	...	1	1	2	10	10	...	...	4	3	...	76	3	...	...	...	...	4
Purneah . . .	260 {	...	...	...	45	...	2	3	6	14	12	...	...	1	7	...	126	...	...	...	...	...	9
Naya Dumka . . .	144 {	...	30	...	17	...	2	4	6	63	9	...	...	1	7	...	166	...	...	...	...	...	5
Suri . . .	204 {	...	1	...	166	...	7	1	5	9	47	...	...	10	18	...	390	...	...	...	...	2	11
Bankura . . .	240 {	...	...	...	33	...	7	3	15	14	25	...	5	6	8	...	144	4	...	...	...	...	8
Midnapore, Central .	957 {	...	...	1	190	...	5	11	54	122	71	...	...	1	102	...	1,005	...	1	...	...	...	43
Balasore . . .	172 {	...	2	...	28	...	...	...	1	54	25	1	...	2	9	...	180	...	...	...	...	...	8
Cuttack . . .	343 {	...	1	1	49	4	4	4	21	64	37	...	...	1	2	25	298	...	...	...	...	...	15
Puri . . .	174 {	...	...	1	9	...	...	...	...	45	7	...	...	6	7	...	90	...	...	...	...	...	3
Angul . . .	115 {	...	23	...	19	...	1	...	2	34	13	...	...	...	13	...	162	...	...	...	...	...	8
GROUP IV.— BENGAL AND ORISSA.	12,984 {	234	72	7	40	3,266	73	171	395	2,556	1,159	2	8	22	208	698	1	12,421	14	12	...	2	2	545
Chaibassa A . . .	185 {	...	5	...	20	21	1	1	13	24	14	...	...	3	13	...	175	...	...	...	...	...	7
Purulia . . .	201 {	...	2	2	48	...	1	3	5	20	43	...	...	5	13	...	187	...	2	...	...	...	6
Ranchi . . .	213 {	...	1	3	31	...	2	6	4	89	37	...	...	2	11	...	236	...	...	...	...	...	13
Palamau . . .	152 {	...	2	1	48	...	...	6	3	41	19	...	...	3	12	...	166	1	...	...	...	...	7
Hazaribagh, Central.	1,035 {	...	...	1	281	...	21	4	41	324	183	...	1	11	79	...	1,228	3	...	...	...	...	44
Gaya B . . .	552 {	2	13	1	53	1	4	11	5	66	2	...	...	2	20	1	272	...	...	...	...	...	10
Bhagalpur, Central .	1,866 {	...	10	...	305	...	23	17	40	170	160	1	...	29	87	...	1,234	2	...	...	...	...	62
Monghyr . . .	372 {	...	...	1	102	...	8	...	11	80	37	...	...	7	28	...	584	8	85	...	44	65	16
Darbhanga . . .	319 {	...	1	...	12	...	5	1	5	77	44	...	...	...	22	...	262	...	...	...	33	...	13
Champarun . . .	315 {	...	...	...	38	...	...	4	8	19	9	...	...	1	13	...	125	...	...	...	...	...	4
Muzaffarpur . . .	376 {	...	8	1	44	...	3	5	4	44	19	...	...	5	14	...	202	...	...	...	...	...	12
Patna . . .	387 {	...	21	5	78	...	1	3	6	50	28	...	...	...	21	...	268	...	...	...	1	...	14
Arrah . . .	275 {	...	...	1	59	...	4	1	4	81	18	...	...	1	23	...	226	...	...	...	2	...	7
Chapra . . .	280 {	...	...	...	54	...	3	...	...	60	13	...	...	...	3	...	166	...	...	...	...	...	5
Buxar, Central . . .	1,230 {	...	...	2	362	...	16	9	7	344	49	...	...	35	33	...	1,089	5	1	...	...	...	40
Korantadih . . .	35 {	...	...	...	1	...	...	...	...	2	...	...	...	...	1	...	7	...	...	...	...	...	...
Ghazipur . . .	381 {	...	...	...	248	...	...	7	24	24	5	...	...	17	30	...	425	1	...	...	...	...	24
Azamgarh . . .	302 {	3	...	1	94	...	2	5	6	15	5	...	...	...	23	...	202	...	...	...	...	...	5
Gorakhpur . . .	527 {	2	...	2	123	...	4	9	22	83	33	...	...	36	36	...	529	4	5	...	...	...	46
Basti . . .	363 {	...	...	6	74	...	7	22	8	18	7	...	...	7	45	...	271	1	1	...	...	...	14
Fyzabad . . .	599 {	...	...	4	85	...	3	9	5	10	10	...	...	8	98	...	391	...	...	...	...	...	19
Sultanpur . . .	363 {	...	...	...	139	1	6	7	9	3	3	...	...	4	55	...	318	2	...	...	...	...	11

JAILS AND GROUPS.	Average annual strength.	1. ADMISSIONS.														2. DEATHS.										Average number constantly sick.
		Influenza.	Cholera.	Small-pox. Enteric Fever.	Malaria.	Pyrexia of un- certain origin.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.	Tania.	Ascaris lumbrici- oides.	Dracunculus Medinensis.	Strongylus duo- denalis.	Other Entozoa.			
Rai Bareli . . .	581 {	..	..	..	35 2	..	7 3	1 ..	14 ..	20 3	10 3	..	..	4 1	27 ..	..	211 17	..	..	..	..	..	14
Partabgarh . . .	256 {	..	..	1	61	..	4	5 2	2 ..	17 ..	2 ..	4	..	5 ..	11 ..	..	149 3	..	..	..	..	..	6
Jaunpur . . .	393 {	..	..	1	79	..	1	6 2	6 1	14 3	14 1	..	..	8 ..	37 ..	..	212 8	..	..	..	..	..	9
Benares, Central . .	1,881 {	..	..	2	408 1	..	21 10	7 3	12 3	46 2	17 1	..	..	1 2	210 ..	..	1,045 36	..	1	..	..	..	46
„ , District . . .	413 {	..	..	1	66 2	..	2 1	4 2	2 ..	9 1	6 ..	..	..	3 2	27 11	..	192 12	..	..	..	..	..	10
Mirzapur . . .	222 {	..	..	2	6	..	1	1 1	..	3 ..	..	..	..	2 2	5 ..	..	35 5	..	..	..	..	..	2
Allahabad, Central .	1,643 {	..	11 4	1	107 3	249	14 6	5 1	37 2	56 2	29 ..	..	..	4 ..	249 ..	..	981 27	..	..	..	..	..	47
„ , District . . .	603 {	..	2 ..	2	79	..	6 1	12 4	38 3	48 6	7 ..	..	..	3 ..	85 ..	..	505 19	1	..	..	..	..	25
Karwi . . .	39 {	..	..	..	5	..	..	2 1	..	1 ..	3 1	..	..	..	1 ..	..	18 3	..	..	..	..	..	..
Banda . . .	209 {	..	2 ..	1	69 1	..	1 1	5 3	13 ..	26 ..	11 1	..	..	1 ..	16 ..	..	228 11	..	..	..	..	..	6
Fatehpur . . .	264 {	..	..	..	82 1	..	..	6 3	6 1	5 ..	27 3	..	..	1 ..	33 ..	..	197 12	..	..	..	..	..	8
Hamirpur . . .	108 {	4	..	..	76	..	..	1	6	13	2	..	..	..	12	..	140	..	..	..	..	..	3
Orai . . .	156 {	..	..	..	67	2	..	2 ..	2 1	17 1	..	..	..	1 ..	15 ..	..	129 3	..	..	..	..	..	4
Cawnpore . . .	408 {	..	..	..	200	..	1	3 1	4 ..	27 1	36 3	..	..	3 1	17 ..	..	367 12	..	..	..	..	1	9
Unao . . .	310 {	..	..	..	24	..	1	1 1	3 ..	1 ..	2 ..	..	..	1 1	21 ..	..	100 3	..	..	..	..	..	4
Lucknow, Central . .	1,679 {	..	..	5	14 1	..	6 2	12 3	6 2	34 11	6 1	2 2	..	1 ..	63 ..	..	235 32	..	..	..	..	..	24
„ , District . . .	645 {	..	..	3	30 1	..	2	5	2 ..	21 4	..	..	..	1 ..	48 ..	..	212 14	1	..	..	..	..	17
Barabanki . . .	476 {	..	1 1	..	73	..	1 1	4 1	5 1	20 1	25 ..	..	..	1 ..	29 ..	..	248 10	..	..	..	..	..	12
Gonda . . .	573 {	..	..	4	76	..	9 6	2 2	8 ..	7 ..	2 ..	..	..	42 ..	12 ..	..	219 9	..	..	..	..	..	12
Bahraich . . .	486 {	..	..	5	145	..	2	11	11 2	34 ..	29 ..	..	..	33 ..	54 1	1 1	436 8	1	..	2	..	..	23
Kheri . . .	347 {	..	..	6	54 1	..	3 3	3 2	4 1	4 1	7 ..	..	..	3 ..	45 ..	..	203 13	..	..	..	..	..	7
Sitapur . . .	833 {	51	..	2	319	2	2	32 4	4 ..	27 3	14 ..	..	..	2 ..	50 ..	..	625 12	..	..	..	..	..	20
Hardoi . . .	495 {	..	..	4	94 1	..	2 2	4 ..	7 1	4 ..	13 ..	..	..	10 ..	27 ..	..	247 8	..	..	..	..	..	12
Etawah . . .	321 {	..	..	..	47	..	1	2	26 ..	27 2	..	..	..	5 1	28 ..	..	199 6	..	..	..	..	1	6
Mainpuri . . .	324 {	3	..	..	480	22	1	8 4	8 ..	59 1	25 ..	..	..	..	33 ..	..	701 6	..	..	..	..	..	15
Etah . . .	312 {	..	..	2	137	..	11 4	14 3	11 ..	21 1	9 ..	..	..	11 ..	30 ..	..	283 9	..	..	..	..	..	11
Fatehgarh, Central .	1,752 {	..	..	..	150 10	..	13 10	14 2	25 7	53 12	12 4	..	..	3 ..	73 ..	3 1	465 54	..	..	..	..	..	23
„ , District . . .	350 {	..	..	1	107 3	..	9	5 2	14 1	25 1	10 ..	..	..	1 ..	14 ..	..	249 12	..	..	..	..	..	8
GROUP V.— GANGETIC PLAIN AND CHUTIA NAGPUR.	26,317 {	65 ..	79 38	68 5	6 3	5,389 41	298 1	235 96	307 82	506 33	2,283 142	1,051 38	3 3	5 ..	1 ..	325 19	1,953 3	5 2	17,394 720	30 ..	95 ..	2 ..	47 ..	100 ..	762	
A Shahjahanpur . . .	406 {	..	..	2	210	..	..	1 1	18 1	11 1	8 1	..	..	3 ..	50 ..	..	391 8	..	..	..	..	..	17
Pilibhit . . .	47 {	..	..	1	3	1	..	..	1 ..	2 ..	1 ..	..	..	..	3 ..	..	14 2	..	..	..	..	..	..
Bareilly, Central . .	2,113 {	..	..	2	832 1	..	25 4	51 21	17 2	54 8	19 ..	..	..	2 ..	88 ..	..	1,253 39	..	..	..	..	..	73

PRISONERS, 1908.

TABLE XLIII—continued.

ACTUALS of FAILS, GROUPS, and ADMINISTRATIONS on which the ratios in Tables XL—XLII have been calculated.

JAILS AND GROUPS.	Average annual strength.	1. ADMISSIONS.										2. DEATHS.										Average number constantly sick.			
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Pyrexia of un- certain origin.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.	Tænia.	Ascaris lumbricoides.		Dracunculus Medinensis.	Strongylus duo- denalis.	Other Entozoa.
Bareilly, District	760	...	...	2	...	400	...	12	53	17	21	5	...	...	...	1	68	...	667	1	...	...	...	...	24
Budaun	395	...	...	1	...	335	...	2	20	9	6	9	...	...	...	4	27	...	511	...	...	...	...	...	14
Aligarh	373	...	...	...	...	182	...	3	13	8	6	1	...	...	...	2	27	...	342	...	...	...	...	...	12
Bulandshahr	260	...	...	1	...	286	...	3	7	16	30	24	...	...	...	...	33	...	465	...	...	...	...	...	15
Moradabad	405	...	...	2	...	400	...	...	13	10	50	20	...	...	...	5	81	...	680	...	...	...	...	...	12
Bijnor	308	...	...	3	...	72	...	8	10	2	4	1	...	...	...	1	19	...	152	...	...	...	...	...	14
Dehra Dun	94	...	...	1	...	45	2	3	2	2	2	6	...	...	...	1	9	...	94	...	...	...	...	...	12
Saharanpur	380	...	...	3	...	128	...	...	2	4	137	22	...	...	...	...	45	...	453	...	...	1	...	...	15
Muzaffarnagar	167	11	...	...	...	201	...	1	8	11	23	14	...	...	...	11	29	...	399	...	...	...	...	...	16
Meerut	595	59	...	2	...	163	...	1	18	6	57	17	...	...	...	...	45	...	469	1	1	...	...	...	17
Delhi	498	...	...	2	...	142	...	4	23	3	29	8	1	...	...	1	22	...	275	...	...	...	...	...	18
Rohtak	154	...	...	...	...	33	...	...	1	1	9	5	...	...	...	...	12	...	96	...	...	4	...	...	19
Hissar	186	...	...	...	...	1	...	4	6	9	17	5	...	...	...	4	32	...	159	...	...	14	...	...	20
Karnal	125	...	...	...	...	90	...	...	8	8	19	7	...	...	...	2	11	...	177	...	...	1	...	...	21
Ambala	642	...	...	2	...	68	...	9	14	15	29	35	...	...	...	18	99	...	369	...	...	...	...	...	22
B																									
Ludhiana	236	...	...	1	...	15	2	2	3	2	7	1	...	...	...	...	11	...	62	...	...	1	...	...	23
Hoshiarpur	65	...	...	...	...	31	...	...	...	...	9	4	...	...	...	...	4	...	58	...	...	...	...	...	24
Jullundur	261	...	...	...	...	27	...	...	4	3	12	6	1	1	...	5	31	...	140	...	...	...	...	...	25
Ferozepore	396	...	...	1	...	54	26	5	14	26	7	32	...	...	...	16	41	...	343	...	...	2	...	...	26
Amritsar	131	...	...	...	...	48	...	...	1	7	2	3	...	...	...	...	22	...	136	...	...	...	...	...	27
Lahore, Central	1,565	26	...	3	...	422	53	20	43	59	110	21	...	...	...	21	136	...	1,093	1	...	4	...	1	28
„, District	475	...	2	1	2	39	7	6	5	5	18	17	...	...	...	1	7	...	201	...	...	...	...	...	29
„, Female	171	...	...	...	...	24	9	4	...	3	11	2	...	2	...	2	4	...	108	...	...	...	...	...	30
Gurdaspur	191	...	...	...	...	14	...	...	...	1	3	4	...	...	...	2	11	...	56	...	...	...	...	...	31
Gujranwala	301	...	...	...	...	86	...	3	10	2	6	7	...	...	...	6	16	...	180	...	...	...	...	...	32
Sialkot	379	...	...	1	2	138	...	1	1	7	31	5	...	...	...	6	21	...	259	...	...	...	...	...	33
Gujrat	134	...	...	...	...	76	...	2	2	1	12	9	...	...	...	1	23	...	157	...	...	...	...	...	34
Jhelum	223	1	...	...	...	33	1	4	3	3	29	8	...	...	...	3	19	...	155	...	...	...	...	...	35
Rawalpindi	742	...	...	1	2	68	...	2	6	10	37	12	...	...	...	19	32	...	258	...	...	2	...	...	36
Campbellpur	170	...	...	...	...	27	1	...	1	...	22	7	...	...	...	...	20	...	125	...	...	6	...	1	37
GROUP VI.— UPPER SUB- HIMALAYA.	13,349	97	2	28	12	4,693	102	124	343	286	827	345	3	3	...	137	1,098	...	10,297	3	1	35	...	2	402

JAILS AND GROUPS.	Average annual strength.	1. ADMISSIONS.										2. DEATHS.										Average number constantly sick.			
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Pyrexia of uncertain origin.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.	Æmia.	Ascaris lumbricoides.		Dracunculus Medinensis.	Strongylus duodenalis.	Other Entozoa.
A																									
Peshawar . . .	591 {	...	...	...	...	737	...	2	21	21	47	...	...	...	3	9	125	...	1,120	...	...	...	...	...	32
Kohat . . .	116 {	...	...	...	...	15	...	...	6	4	5	2	...	...	...	...	7	...	57	...	...	1	...	...	3
Bannu . . .	152 {	2	...	...	...	7	...	...	1	3	13	9	...	...	...	5	11	...	87	...	...	3	...	...	4
Shahpur . . .	208 {	...	...	...	...	83	...	...	2	2	17	22	...	...	...	1	20	...	188	...	...	5	...	...	4
Mianwali . . .	216 {	...	...	...	...	10	2	...	...	6	2	3	...	...	...	...	21	...	92	...	...	6	...	...	4
Lyallpur . . .	298 {	...	...	2	...	62	1	1	1	2	1	4	...	...	...	...	12	...	128	...	...	...	...	...	4
Jhang . . .	188 {	...	...	...	...	52	3	...	2	5	8	3	...	...	...	...	23	...	146	...	...	...	...	...	4
Montgomery, Central.	1,967 {	...	3	3	...	148	1	62	14	70	97	118	...	...	...	30	52	...	846	...	...	1	...	...	3
Mooltan, Central	1,062 {	6	...	...	...	73	...	13	9	46	2	10	...	5	...	4	116	...	472	...	...	2	...	...	66
„, District	700 {	...	...	3	1	70	...	13	16	24	20	13	...	...	1	13	128	...	451	...	...	...	...	...	24
Dera Ismail Khan .	391 {	...	...	...	1	135	...	7	4	13	36	11	...	8	1	5	60	...	344	...	...	5	...	...	18
Dera Ghazi Khan .	224 {	...	...	...	...	26	3	...	1	8	20	11	...	...	...	...	25	...	196	...	...	...	...	...	11
B																									
Sibi . . .	42 {	...	...	...	...	14	...	...	1	...	2	...	...	...	...	...	4	...	29	...	...	...	...	...	5
C																									
Sukkur . . .	385 {	...	...	...	...	26	...	...	9	12	7	2	...	...	2	...	4	...	86	...	...	1	...	...	1
Sind Gang . . .	459 {	...	...	...	...	98	...	...	44	35	29	25	...	1	2	2	57	...	384	...	...	...	...	...	3
Hyderabad, Central .	910 {	...	1	...	2	131	1	3	56	91	59	16	...	2	23	16	25	...	581	...	...	...	...	...	17
Karachi . . .	384 {	...	...	...	...	4	24	3	1	9	31	11	...	...	2	5	17	...	186	...	...	...	...	...	27
GROUP VII.—																									
N.-W. FRONTIER, INDUS VALLEY, AND N.-W. RAJPUTANA.		8,293 {	8	4	8	4	1,691	35	104	185	351	396	260	...	16	34	91	707	...	5,393	4	...	24	...	233
A																									
Rajkot . . .	80 {	...	...	...	...	1	...	...	...	2	2	8	...	...	...	...	3	...	27	...	...	...	...	...	3
Ahmedabad, Central.	918 {	...	...	...	...	43	...	6	8	20	11	17	...	...	1	14	65	...	337	...	...	2	...	...	16
B																									
Ajmer . . .	359 {	...	...	...	...	45	...	1	2	2	5	5	...	...	...	1	24	...	123	...	...	1	...	...	5
Muttra . . .	270 {	...	1	...	...	288	...	2	9	6	43	24	...	...	...	...	67	...	529	...	...	...	...	...	23
Agra, Central . . .	2,246 {	...	...	1	5	364	...	25	41	103	24	33	...	...	...	23	153	...	1,137	...	...	1	...	...	103
„, District	504 {	...	...	...	...	56	...	2	18	15	16	14	...	...	...	5	49	...	301	...	...	...	...	...	16
Jhansi . . .	233 {	...	...	...	...	91	...	...	11	3	18	35	...	1	1	1	20	...	239	...	...	...	...	...	6
Lalitpur . . .	56 {	...	...	...	...	14	...	...	...	2	1	1	...	...	...	3	...	...	25	...	...	...	...	...	1
GROUP VIII.—																									
S.-E. RAJPUTANA, CENTRAL INDIA, AND GUJARAT.		4,666 {	...	1	1	5	902	...	36	89	153	120	137	...	1	2	47	381	...	2,708	...	...	4	...	173

PRISONERS, 1908.

TABLE XLIII—continued.

ACTUALS of FAILS, GROUPS, and ADMINISTRATIONS on which the ratios in Tables XL—XLII have been calculated.

JAILS AND GROUPS.	Average annual strength.	1. ADMISSIONS.														2. DEATHS.							Average number constantly sick.		
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Pyrexia of uncer- tain origin.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.	Tænia.	Ascaris lumbrici- oides.	Dracunculus Medinensis.		Strongylus duo- denalis.	Other Entozoa.
A																									
Damoh . . .	86 {	...	...	...	...	30	...	...	2	1	6	6	...	...	...	1	16	...	88	...	...	4	...	...	2
Saugor . . .	140 {	...	...	1	...	52	...	1	2	10	25	17	...	...	...	2	14	...	184	...	...	2	...	...	6
Jubbulpore, Central .	906 {	...	...	...	...	192	...	5	2	9	9	3	...	...	1	...	43	...	384	...	...	6	...	...	11
Narsinghpur . . .	75 {	...	...	...	...	3	...	1	...	...	3	1	...	...	...	1	1	...	14	...	...	...	...	...	1
Mandla . . .	76 {	...	...	1	...	5	...	...	...	4	1	...	...	...	...	...	7	...	28	...	...	...	...	...	1
Bilaspur . . .	104 {	...	...	...	...	10	1	...	...	...	17	1	...	...	...	1	3	1	55	...	...	...	...	...	2
Sambalpur . . .	223 {	...	6	...	2	77	...	...	2	7	53	16	...	...	...	1	14	...	238	...	...	...	...	...	6
Raipur, Central . . .	578 {	6	...	...	1	130	8	4	5	17	43	26	...	...	...	33	64	...	516	...	...	...	...	...	23
Balaghat . . .	65 {	...	...	...	...	8	1	9	...	4	4	2	...	...	...	...	1	...	37	2	1	...	...	...	2
Seoni . . .	67 {	...	...	1	...	1	...	...	...	...	7	...	...	...	...	...	10	...	37	2	...	...	...	...	1
Chhindwara . . .	61 {	...	...	...	...	5	...	1	1	...	1	1	...	...	...	1	6	...	24	...	...	...	...	...	1
Hoshangabad . . .	74 {	...	...	...	...	11	...	2	...	...	6	13	...	...	...	1	4	...	48	...	...	...	...	1	1
Nimar . . .	69 {	...	...	...	...	6	...	...	...	...	3	14	...	...	...	...	6	...	50	...	...	...	...	...	1
Betul . . .	55 {	...	...	...	...	4	...	...	...	3	1	1	...	...	...	3	4	1	23	...	...	...	...	...	1
Nagpur, Central . . .	985 {	1	...	...	...	461	33	15	3	15	36	10	...	...	...	2	52	...	793	...	...	1	...	...	22
Bhandara . . .	54 {	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	2	...	...	...	...	...	...
Wardha . . .	57 {	...	...	...	...	3	1	...	...	...	...	2	...	...	...	...	1	1	13	...	...	...	...	...	...
Chanda . . .	66 {	...	...	...	...	8	...	...	...	1	1	2	...	...	...	...	1	...	16	...	...	...	...	...	1
B																									
Secunderabad . . .	85 {	...	...	...	...	17	...	...	2	...	11	...	...	...	...	1	8	...	78	...	...	...	...	...	2
Yeotmal . . .	104 {	...	...	...	...	11	...	1	...	5	2	9	...	...	...	1	3	...	41	...	...	...	...	...	1
Amraoti . . .	169 {	10	...	...	...	3	...	...	4	...	6	1	...	...	...	1	9	...	6	...	...	1	...	...	3
Akola . . .	166 {	2	...	...	...	15	...	1	...	1	7	4	...	...	...	1	16	...	97	...	...	1	...	...	4
Buldana . . .	56 {	...	...	...	...	3	...	...	1	...	2	1	...	...	...	2	...	...	21	...	...	1	...	...	...
Dhulia . . .	405 {	...	...	...	...	28	...	3	...	2	...	4	...	...	...	1	15	...	117	...	...	13	...	...	8
Yerrowda, Central . . .	1,555 {	...	...	2	...	272	...	21	1	35	77	179	...	16	...	25	217	...	1,525	4	...	47	...	...	105
Bijapur . . .	334 {	...	...	...	...	39	22	1	1	31	21	3	...	...	...	...	15	...	251	...	...	22	...	...	8
Deccan Gang . . .	581 {	...	...	...	...	84	...	...	5	26	17	34	1	...	2	2	179	...	620	...	...	24	...	...	22
Dharwar . . .	361 {	...	...	...	...	111	2	1	1	1	24	23	...	...	1	1	17	...	259	...	...	8	...	...	5
GROUP IX.— DECCAN . . .	7,557 {	19	6	5	4	1,539	68	66	32	172	384	373	1	16	4	81	726	3	5,625	6	1	130	...	1	240

JAILS AND GROUPS.	Average annual strength.	1. ADMISSIONS.										2. DEATHS.										Average member constantly sick.				
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Pyrexia of un- certain origin.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough, and Gangrene.	ALL CAUSES.	Tænia.	Ascaris lumbricoides.		Dracunculus Medinensis.	Strongylus duo- denalis.	Other Entozoa.	
Thana . . .	583 {	...	...	2	...	76	...	3	3	48	30	38	...	...	...	6	41	...	425	...	...	22	...	...	19
Bombay, Common .	403 {	...	...	...	...	48	...	5	4	10	7	11	...	...	...	9	12	...	147	...	...	2	...	...	6
Bombay, House of Correction. }	216 {	...	...	1	...	3	...	6	1	3	9	1	...	...	...	2	5	...	50	...	...	...	...	...	4
Ratnagiri . . .	93 {	...	...	...	...	4	1	...	...	4	2	...	...	1	...	...	1	...	31	...	...	1	...	...	2
Karwar . . .	198 {	...	...	...	...	26	5	...	2	12	42	6	...	1	...	...	3	...	155	...	1	1	...	...	6
Mangalore . . .	94 {	...	...	3	...	3	1	...	...	...	16	...	...	...	...	...	...	...	27	...	1	...	...	...	1
Cannanore, Central.	813 {	...	...	6	...	102	13	4	6	42	86	17	...	...	...	26	23	...	437	...	...	...	...	...	22
GROUP X.— WESTERN COAST. }	2,400 {	...	...	3	9	262	20	18	16	119	192	73	...	2	...	43	85	...	1,272	...	2	26	...	...	60
A																										
Bellary, Central .	722 {	...	...	1	...	75	...	9	7	5	40	6	...	...	...	7	38	...	454	2	1	66	...	...	25
Salem, Central .	708 {	...	...	6	...	55	2	2	8	9	51	...	...	...	...	...	5	...	194	...	...	10	...	...	9
Coimbatore, Central	1,282 {	...	...	...	...	25	1	5	12	8	29	...	...	...	2	8	27	...	251	...	...	35	...	...	13
B																										
Palamcottah . . .	388 {	...	2	...	...	8	...	1	3	3	16	...	...	...	...	8	14	...	89	...	...	1	...	...	8
Madura . . .	471 {	...	...	...	...	12	11	3	2	16	12	...	...	...	...	7	8	...	184	...	1	9	...	...	11
Trichinopoly, Central	1,091 {	...	...	...	...	32	6	18	1	12	83	...	...	...	...	8	23	...	326	...	...	17	...	1	22
Tanjore . . .	372 {	...	...	1	...	...	...	2	1	3	3	2	...	...	...	...	9	...	39	...	...	...	...	...	4
Cuddalore . . .	389 {	1	...	...	...	8	...	1	...	16	39	2	...	...	...	5	11	...	151	...	1	7	...	...	4
Vellore, Central .	1,345 {	...	...	...	...	20	79	3	15	44	19	22	...	...	...	55	98	...	733	...	3	23	...	2	31
Madras, Civil . .	35 {	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...
Madras Peni- tentiary, Central. }	949 {	...	2	...	2	11	20	11	6	15	2	...	...	...	...	11	10	...	219	...	1	4	1	1	12
C																										
Rajahmundry, Central	1,064 {	...	64	...	...	74	9	11	10	28	158	...	...	...	...	29	23	...	639	...	...	17	...	...	32
Vizagapatam . .	647 {	...	25	...	2	327	...	8	15	11	94	25	...	...	...	46	7	...	793	1	2	...	1	...	45
Berhampur . . .	173 {	...	32	...	2	19	1	4	2	8	20	...	...	...	...	2	...	...	105	...	...	...	...	...	3
GROUP XI.— SOUTHERN INDIA. }	9,636 {	1	125	2	12	666	129	78	82	178	566	57	...	...	2	186	273	...	4,171	3	9	189	2	4	219

TABLE XLIII—concluded.

ACTUALS of FAILS, GROUPS, and ADMINISTRATIONS on which the ratios in Tables XL—XLII have been calculated.

JAILS, GROUPS, AND ADMINISTRATIONS.	Average annual strength.	1. ADMISSIONS.														2. DEATHS.										Average number constantly sick.
		Influenza.	Cholera.	Small-pox.	Enteric Fever.	Malaria.	Pyrexia of uncer- tain origin.	Tubercle of the lungs.	Pneumonia.	Respiratory Diseases.	Dysentery.	Diarrhoea.	Hepatic Abscess.	Spleen Diseases.	Scurvy.	Anæmia and Debility.	Abscess, Ulcer, and Boil.	Phagedæna, Slough and Gangrene.	ALL CAUSES.	Tænia.	Ascaris lumbricoides.	Dracunculus Medinensis.	Strongylus duo- denalis.	Other Entozoa		
Aijal . . .	9	...	...	...	...	5	...	...	...	1	4	6	...	...	...	1	1	...	25	...	...	...	...	...	1
Kohima . . .	18	...	...	...	...	3	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...
Shillong . . .	51	...	...	...	...	9	...	1	1	4	11	3	...	...	1	...	5	...	43	...	...	...	...	...	2
Darjeeling . . .	108	...	...	...	...	17	...	5	...	32	7	6	...	...	...	3	6	...	103	...	...	...	...	...	6
Almora . . .	82	...	...	...	...	7	...	...	2	4	11	5	...	...	...	...	2	...	43	...	...	...	...	...	1
Pauri . . .	13	...	...	...	...	6	...	1	...	...	3	1	...	...	...	...	1	...	17	...	...	...	...	...	1
Naini Tal . . .	41	...	...	...	...	26	...	...	1	1	...	13	...	...	...	5	3	...	67	...	...	...	...	...	1
Simla . . .	11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...
Abbottabad . . .	95	...	...	...	...	11	...	...	1	...	2	2	...	...	...	2	6	...	35	...	...	...	...	...	1
Quetta . . .	51	...	...	...	...	31	...	...	1	3	4	4	...	4	...	...	21	...	140	...	...	...	...	...	3
Mercara . . .	92	...	...	...	...	4	...	...	4	3	4	1	...	...	...	1	3	...	29	...	...	...	...	...	1
Russellkonda . . .	95	...	27	...	...	4	...	...	1	2	14	...	...	...	...	5	8	...	72	...	...	...	...	...	1
GROUP XII.— HILLS . . .	666	...	27	...	...	123	...	7	11	50	61	41	...	4	1	18	57	...	578	...	...	...	...	...	18
EXTRA INDIA— Aden . . .	65	...	...	...	...	3	...	...	...	...	2	1	...	1	...	...	2	...	12	...	...	...	...	...	1
INDIA (a)†	1,01,336	26	...	3	5	359	18	164	142	168	194	66	2	4	8	73	243	...	2,269	1	1	4	...	...	2,909
Admissions	430	337	123	113	20,039	953	951	1,259	2,366	7,796	3,806	11	57	69	1,194	6,605	9	...	65,455	60	122	410	60	110		
Total deaths .	4	170	15	36	105	2	381	328	104	473	95	10	2	3	56	8	4	...	2,449	...	1	1	2	...		
Deaths out of hospital .	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	28	...	...	...	...	...	...
BURMA . . .	13 71	6	17	...	21	494	228	106	50	128	269	161	2	1	3	27	543	...	3,840	...	1	...	5	1	215	
EASTERN BENGAL AND ASSAM. }	7,118	233	15	230	2,017	42	75	82	191	1,433	516	1	...	6	134	306	1	...	6,528	5	1	...	5	...	261	
BENGAL . . .	15,565	3	130	20	16	3,856	53	200	133	432	2,828	1,491	2	9	17	214	893	1	14,474	28	100	...	48	100	600	
UNITED PROVINCES. }	28,318	133	17	75	9	7,963	279	231	516	605	1,318	655	3	5	2	288	2,380	4	19,217	13	8	4	...	2	875	
PUNJAB . . .	11,919	33	5	16	11	1,960	109	155	190	3-8	586	382	2	8	1	157	971	...	6,927	4	...	48	...	2	309	
N.-W. FRONTIER PROVINCE. }	1,345	2	...	...	1	905	...	9	33	41	103	24	...	8	4	21	209	...	1,643	...	...	9	...	...	51
CENTRAL PROVINCES. }	4,013	19	...	3	1	961	44	40	20	70	181	114	...	...	1	50	261	3	2,537	1	...	16	...	1	84
BOMBAY . . .	7,930	...	1	5	3	997	55	52	136	341	370	379	1	22	33	83	678	...	5,183	6	2	143	...	...	259
MADRAS . . .	10,638	1	152	2	21	775	143	82	89	222	682	74	...	...	2	217	304	...	4,707	3	10	189	2	4	243
ANDAMANS . . .	14,067	...	...	...	3	12,045	133	148	143	635	1,559	500	...	3	31	5	1,405	4	20,236	3	...	1	10	1	1,105
INDIA (b)††	15,403	26	...	3	...	779	114	292	161	225	284	85	2	5	16	73	330	...	3,421	1	1	4	...	...	4,014
Admissions	430	337	123	...	32,087	1,086	1,099	1,402	3,001	9,355	4,306	11	60	100	...	8,010	13	...	85,691	63	122	411	70	111		
Total deaths .	4	170	15	...	136	2	481	386	119	534	105	10	3	3	56	8	6	...	2,824	...	1	1	5	...		
Deaths out of hospital	...	1	...	...	...	...	...	1	...	1	...	1	...	...	...	...	...	...	57	...	...	...	...	...	...

* Remaining + admitted = total treated; Remaining + admitted + died out of hospital = total cases.

† Including Ajmer, Sibi, Quetta, Secunderabad, and Mercara, and excluding Andamans.

†† Including Ajmer, Sibi, Quetta, Secunderabad, Mercara and Andamans.

(a) Including the subsidiary jails, the total figures are :—Average strength, 107,271. Average constantly sick, 2,998. Number of deaths, 2,584. Number of admissions, 60,844.

(b) Including the subsidiary jails, the total figures are :—Average strength, 121,338. Average constantly sick, 4,103. Number of deaths, 2,959. Number of admissions, 90,080.

GEOGRAPHICAL GROUPS.	1. AVERAGE STRENGTH.						2. CONSTANTLY SICK.						Average for the year.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
GROUP I.—BURMA COAST AND BAY ISLANDS.	9,663 134	9,482 136	9,570 145	9,585 131	9,641 131	9,843 150	9,706 179	9,675 170	9,563 138	9,551 131	9,063 152	9,150 155	9,542 147
GROUP II.—BURMA INLAND . . .	4,260 55	4,224 59	4,261 71	4,296 64	4,301 63	4,348 61	4,354 65	4,453 74	4,537 75	4,489 84	4,182 85	4,223 65	4,329 68
GROUP III.—ASSAM . . .	1,631 34	1,608 29	1,587 30	1,600 36	1,589 37	1,600 48	1,603 73	1,597 53	1,501 40	1,447 42	1,308 36	1,316 30	1,532 41
GROUP IV.—BENGAL AND ORISSA . . .	12,344 439	12,544 414	12,552 477	12,664 500	12,756 517	12,978 549	13,243 614	13,442 630	13,827 630	13,721 661	12,752 553	12,983 516	12,984 545
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR.	23,437 651	24,689 626	25,473 679	26,005 758	26,058 740	27,159 737	27,564 803	28,189 848	28,456 820	27,797 900	25,675 822	25,263 758	26,317 762
GROUP VI.—UPPER SUB-HIMALAYA . . .	12,486 381	12,795 332	13,210 300	13,436 317	13,426 328	13,683 335	13,865 336	14,021 370	14,065 515	13,728 556	12,813 606	12,665 472	13,649 402
GROUP VII.—N.-W. FRONTIER, INDUS VALLEY, AND N.-W. RAJPUTANA.	7,864 214	8,025 201	8,319 203	8,501 235	8,520 211	8,513 215	8,530 216	8,423 232	8,568 268	8,550 275	7,935 259	7,774 242	8,293 233
GROUP VIII.—S.-E. RAJPUTANA, CENTRAL INDIA, AND GUJARAT.	4,317 166	4,300 156	4,503 162	4,743 167	4,843 157	4,863 163	4,917 151	4,976 169	4,978 213	4,836 207	4,407 180	4,299 180	4,666 173
GROUP IX.—DECCAN . . .	6,900 212	6,947 219	7,065 236	7,264 226	7,510 226	7,702 228	7,887 258	8,044 265	8,016 275	8,125 272	7,629 237	7,560 230	7,557 240
GROUP X.—WESTERN COAST . . .	2,343 50	2,322 53	2,379 68	2,402 51	2,442 55	2,463 60	2,418 67	2,432 69	2,520 60	2,455 64	2,283 62	2,323 49	2,400 60
GROUP XI.—SOUTHERN INDIA . . .	9,641 197	9,635 184	9,544 191	9,485 170	9,469 193	9,528 223	9,528 236	9,430 278	9,675 245	10,180 269	9,648 218	9,853 229	9,689 219
GROUP XII.—HILLS . . .	597 11	602 11	592 10	648 13	738 17	741 18	784 26	773 24	842 28	609 21	530 14	530 21	666 18
INDIA*	95,557 2,548	97,252 2,420	99,121 2,577	1,00,689 2,669	1,01,347 2,675	1,03,476 2,787	1,04,447 3,024	1,05,523 3,183	1,06,615 3,308	1,05,563 3,484	98,295 3,224	98,007 2,948	1,01,336 2,909

ADMINISTRATIONS.	1. AVERAGE STRENGTH.						2. CONSTANTLY SICK.						Average for the year.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
BURMA	13,923 189	13,706 195	13,831 216	13,881 195	13,942 194	14,191 211	14,060 244	14,128 244	14,100 213	14,040 215	13,250 237	13,378 220	13,871 15
EASTERN BENGAL AND ASSAM . . .	7,192 197	7,219 185	7,093 233	7,070 257	7,074 245	7,186 263	7,219 297	7,321 291	7,327 311	7,206 325	6,686 272	6,840 248	7,186 261
BENGOAL	14,354 480	14,708 481	14,872 500	15,041 551	15,158 577	15,534 598	15,898 711	16,221 719	16,739 660	16,719 671	15,626 603	15,880 602	15,565 600
UNITED PROVINCES	25,050 789	26,438 703	27,714 745	28,574 827	28,684 814	29,572 827	29,856 8	30,326 895	30,441 1,001	29,584 1,093	27,123 1,039	26,293 922	28,308 875
PUNJAB	11,263 318	11,360 283	11,474 261	11,785 263	11,909 263	12,159 265	12,461 263	12,469 293	12,532 386	12,373 407	11,674 410	11,557 324	11,919 30
N.-W. F. PROVINCE	1,243 41	1,306 35	1,502 35	1,421 42	1,393 34	1,279 39	1,253 33	1,314 41	1,420 68	1,402 95	1,305 79	1,305 52	1,345 51
CENTRAL PROVINCES	3,451 56	3,539 58	3,674 69	3,871 71	4,019 74	4,131 83	4,255 74	4,315 94	4,243 120	4,359 121	4,099 104	4,095 89	4,013 84
BOMBAY	7,722 252	7,654 269	7,792 285	7,940 263	8,058 251	8,227 243	8,227 288	8,297 284	8,259 264	8,169 246	7,436 220	7,343 225	7,930 259
MADRAS	10,713 214	10,658 199	10,544 212	10,474 187	10,480 212	10,571 247	10,594 264	10,504 311	10,796 272	11,092 300	10,490 250	10,719 254	10,633 243
INDIA†	95,557 2,548	97,252 2,420	99,121 2,577	1,00,689 2,669	1,01,347 2,675	1,03,476 2,787	1,04,447 3,024	1,05,523 3,183	1,06,615 3,308	1,05,563 3,484	98,295 3,224	98,007 2,948	1,01,336 2,909
ANDAMANS	14,279 1,139	14,274 1,105	14,240 1,081	14,200 1,079	14,179 1,187	14,100 1,239	14,114 1,264	14,086 1,104	14,055 1,035	13,999 1,035	13,795 1,005	13,464 988	14,067 1,105
INDIA‡	1,09,836 3,687	111,525 3,526	113,361 3,658	1,14,889 3,748	1,15,526 3,862	117,606 4,026	1,18,561 4,283	119,609 4,287	1,20,670 4,343	1,19,562 4,520	1,12,090 4,229	1,11,471 3,936	1,15,403 4,014

* Including Aden, and excluding Andamans.

† Including Aimer, Sibi, Quetta, Secunderabad, and Mercara and excluding Andamans.

‡ Including Andamans.

TABLE XLIV.

ABSTRACT of the SANITARY SHEETS of the most UNHEALTHY JAILS, SANITARY DEFECTS, IMPROVEMENTS, SUGGESTIONS, etc.

BENGAL.

Jessore.—Overcrowding lasted for four months and eight days during the year in all the wards allotted for convicts and in one of the under-trial wards. There is no separate accommodation in the hospital for cases of infectious disease. At present nightsoil from the hospital privies has to be carried through two wards, which is objectionable. The smaller drains inside the jail are defective in slope and fall. The sickness and mortality are said to have been due partly to an extraordinary invasion of flies during January and February. Two skylights were opened in one of the hospital wards, improving the ventilation and the entry of light. Double fly-proof doors were provided to both the hospital and the general kitchens. The Inspector-General remarks that prisoners in this jail come from an unhealthy district.

Baraset.—The jail was overcrowded during part or the whole of March, May, June, July, August and September. Heavy rains and imperfect drainage outside the jail were said to be the chief cause of malaria. It is said that most of the prisoners who come to this jail from the locality and from the sub-jails are affected with dysentery and malaria. The Inspector-General remarks that it is an unhealthy district.

Howrah.—The convict and under-trial wards were overcrowded almost throughout the year. The jail is surrounded on two sides by a number of wretched huts, inhabited by a poor class of people and among the huts there are many *kutchas* drains, where filthy water accumulates and forms a great breeding ground for mosquitoes. Electric lighting was provided during the year.

Krishnagar.—A *kutchas* shed in the inner yard of the jail, capable of accommodating 32 prisoners, was insufficient to relieve the overcrowding, which lasted throughout the year. The Public Works Department has submitted estimates for erecting another shed. The dormitory accommodation is said to be insufficient, and in the factory and work sheds the floors are damp, walls bad, and roofs not always water-tight or sun-proof; the hospital accommodation is inadequate and unsatisfactory. The ground on which the jail is built is flat and the drainage is not very good, particularly to the west and south, so that water-logging occurs occasionally in the garden after heavy rain. The surface drainage has been cut off from the *Laldighi* reserved for drinking water for the public. A *pucca* drain along the outside of the northern side of the main jail wall is said to be needed, as the present *kutchas* drain continually silts up. A *mehtar* colony and a neglected tank within 200 yards of the jail are too insanitary areas to which the attention of the local municipality has been frequently drawn. The sickness and mortality were attributed to:—(1) Lowered vitality and consequent diminished power of resistance to disease, the result of scarcity and high prices of food in the district. (2) Malarial infection, the district of Nadia being notoriously malarious. (3) Cholera in the municipal area to the west of the jail. Several minor sanitary improvements in connection with drainage, clearance of jungle, etc., were effected during the year. The Inspector-General remarks:—“Generally an unhealthy jail. Application has been made for funds for a much needed new hospital”.

Naya Dumka.—Overcrowding lasted for 225 days during the year. The sickness and mortality were abnormally high, due, it is said, to the majority of the prisoners having been admitted into the jail in bad health and to the overcrowding of the jail. Many of the prisoners were admitted to hospital on arrival at the jail. The Inspector-General remarks:—“The bad results of the year were largely due to a serious cholera outbreak, origin not traced. The jail urgently needs extension and funds are awaited”.

Suri.—There was no overcrowding and no important defects were reported.

Midnapore Central.—The jail was overcrowded on 114 days. Six of the dormitories were reconstructed during the year, but the ventilation of wards Nos. 7, 8, 9 and 10 is still defective. Malaria and dysentery were the prevailing diseases.

Balasore.—There was overcrowding almost throughout the year. The convict warders and night guards were allowed to sleep a night in the workshed to relieve the overcrowding. Gastro-intestinal troubles are said to be most frequent among the opium-eaters, who form a large percentage of admissions into the jail and hospital. Worn-out, old and debilitated men, who have not sufficient strength or vitality to recover from any severe form of illness, are admitted into the jail and increase the death-rate. The number of dysentery cases and bowel complaints increased during the rainy season owing to the sudden variations of temperature. The health of the prisoners was much affected during this time and meat was issued to them. The Inspector-General remarks that the district is unhealthy.

Cuttack.—Overcrowding lasted from the 27th April to the 10th November and from the 29th November to the 23rd December. It was relieved by using two temporary sheds. The dormitories are insufficient in number and defective in structure. The factories are insufficient in number and size; work has to be carried on in the dormitories during the rainy season. There are no separate wards for infective diseases in the hospital. The ventilation is generally defective, as the jail is situated in the middle of the town and surrounded by court buildings. The ventilation of the wards is also defective, as in all of them, with the exception of No. 2, there are four rows of beds. The Inspector-General states that large extensions are in progress.

EASTERN BENGAL AND ASSAM.

Dibrugarh.—There was overcrowding for 112 days in the convict ward and for 85 days in the under-trial ward. The accommodation in the dormitories and hospital is at times insufficient. The drainage around the jail is very defective. It is said that the jail is old and constructed on a pattern that is now obsolete.

Gauhati.—This jail was overcrowded throughout the year. The dormitories are said to be infested with fleas and to be very draughty. The site of the jail is low and the factory sheds are damp. The drains inside the jail are out of repair and are lower than those outside so that during the rains they become flooded. Villages, bazaars and low-lying *Bheel* land surround the jail. The prevalence of dysentery was attributed to the dampness of the jail buildings and defective drainage.

Mymensingh.—The shed used to prevent overcrowding of the barracks was said to be quite unsuitable. The drainage outside the jail is very unsatisfactory. Cholera was the chief cause of the unhealthiness of this jail during the year.

Dacca.—There was overcrowding throughout the year and some prisoners had to be accommodated in the workshops. The drainage around the jail is very defective due, in the opinion of the Inspector-General, to the indifference of the Municipal Committee of Dacca town.

Rampur Boalia.—Overcrowding lasted for 51 days. The jail is situated in the native town and it is said that the site is below the level of the river. The transfer of sick and aged prisoners from the district jails in part accounted for the increased sickness and mortality.

UNITED PROVINCES.

Meerut.—No important defects were reported.

Muttra.—The jail was overcrowded for about 20 days in April. No important defects were reported.

PRISONERS, 1908.

TABLE XLIV—*continued*

ABSTRACT of the SANITARY SHEETS of the most UNHEALTHY JAILS, SANITARY DEFECTS, IMPROVEMENTS, SUGGESTIONS, etc.—continued.

Agra Central and District.—No important defects were reported. In these jails as well as in those at Meerut and Muttra malaria was the chief cause of the unhealthiness.

Jhansi.—Overcrowding lasted for 45 days. The high death-rate was attributed to the admission of prisoners who were already broken down in health.

Ghazipur.—The jail is said to be old fashioned but improvements are being carried out. The number of old and infirm prisoners was unusually large during the year.

Gorakhpur.—There was overcrowding for 72 days. No defects were reported and the jail was described by the Inspector-General as a well built modern jail in excellent sanitary condition.

PUNJAB.

Delhi.—Overcrowding, which lasted for 223 days, was relieved by using tents. The year was marked by a heavy rainfall, which led to a severe epidemic of malarial fevers in the district and city, but owing to the prophylactic use of quinine the jail suffered to a slight extent only. Dysentery was also very prevalent in the district and city, as a separate disease and as a sequela of malarial fevers. Pneumonia, too, caused a large number of admissions. Apart from the epidemic of malarial fevers, no particular local causes are assigned for the sickness and mortality. The Inspector General remarks :—“Sanitary condition sound ; but buildings not suitable for prison requirements. Mortality rate practically always above that of the provincial prison rate, the general physique of the new admissions is very poor and probably to that may be attributed the comparatively high death-rate”.

Karnal.—The excess number of under-trial prisoners was accommodated inside the jail in the barracks for convicts. The ventilation of barrack No. 7 for under-trials and in the women's barracks is defective. A very large number of prisoners were admitted in indifferent health owing to malaria, which was prevalent in the district from August to November. The Inspector-General remarks :—“There are many requirements, but as it is intended to convert this jail into a subsidiary, no money is being spent on construction. The mortality rate is very high, but the daily population is small so that the six deaths give a high figure of 47·62. The physique of those admitted is lower than in any other district and has been lower this year than usual, and I find that, of the six prisoners who died, four were admitted in bad and two in indifferent health”.

Ambala.—Some of the cells are built “back-to-back”, thus preventing through ventilation and proper lighting. Nos. 2 and 5 double barracks are not well constructed and the arrangement of the building does not permit free ventilation of the site. As far as malaria was concerned, though the surrounding civil population suffered badly, the prisoners scarcely suffered at all ; there were only 62 admissions compared with 121 in the previous year. The medical officer in charge states that this was no doubt due to the efficient prophylactic use of quinine. The Inspector-General remarks :—“The daily population of this jail was much raised, as there was a general increase of prisoners, but there was never actual overcrowding. I do not consider that the general health was adversely affected by the number accommodated. The medical officer who held charge most of the year informed me that there was not the slightest indication of lowered health brought about by the occupancy of barracks Nos. 2 and 5”.

Lahore Central.—There was no actual overcrowding, as the under-trial prisoners were accommodated in the barracks allotted for the convicts and tents were used when the number of the prisoners was in excess of that which could be accommodated in barracks. The Inspector-General remarks :—“The death-rate for the past year was 36·42 against 25·16 and was the highest for many years past. It was brought about by the prevalence of dysentery, pneumonia and tubercle. I considered that the high mortality was in a measure due to the breakdown of the medical arrangements owing to sickness and change of staff whereby careful supervision just at the unhealthiest time of the year was wanting. The general sanitary condition of the institution is excellent”.

Lahore Female.—The medical officer in charge states that the increased death-rate was due to the exceedingly unhealthy year in Lahore following the unusually heavy rainfall. Some of the buildings, *e.g.*, workshops, let the rain through the roofs and walls. Nearly all the deaths recorded were in old and infirm women, who were admitted to jail in indifferent or bad health and who quickly succumbed to the prevailing unhealthy conditions. The Inspector-General remarks :—“A very high mortality rate recorded, but every single death adds 8 to the rate so that in a small jail the figure is of no very great significance ; especially here, as there are many old, feeble and broken down women with long terms”.

Jhelum.—The overcrowding was relieved by accommodating the excess number in other available barracks. The sickness and mortality are not attributed to any particular condition. The Inspector-General remarks :—“Jail on a healthy site and sanitary state good. The high mortality rate due mainly to adventitious causes.”

Montgomery Central.—The overcrowding which lasted throughout the year was relieved by accommodating the prisoners in barracks, as heavy rainfall and bad drainage rendered tents uninhabitable. The drainage outside the jail is bad and at times of heavy rainfall all drainage finds its way to the back of the jail enclosure and water tends to accumulate. Tubercle, as in past years, was the chief cause of a high mortality. The medical officer states that as tuberculous prisoners are kept in part of a general hospital, this probably accounts for the want of success that has attended all efforts to cope with these affections. To this want of separation he attributes the spread of the disease, as 19 out of the 28 who died would appear to have contracted the disease in the jail. The Inspector-General remarks :—“This jail invariably has more convicts than it is intended to hold and is therefore technically always overcrowded ; however, under ordinary circumstances, the overflow is accommodated in tents, and taking into consideration the site, I don't think has the slightest effect on the general health. Funds were again allotted and again withdrawn for the tubercular ward ; undue stress, however, need not be placed on isolation, it has in no way affected tubercle in the Lahore Central Jail. The defects in drainage will be removed by the excavation of the Montgomery canal which is now in hand.”

NORTH-WEST FRONTIER PROVINCE.

Kohat.—The overcrowding in the convict and under-trial wards which lasted for 90 days, was relieved by using workshops or other buildings. The jail is built on the outside of the city wall and in an unsatisfactory position.

CENTRAL PROVINCES.

Saugor.—The excess number of under-trial prisoners were locked up in an empty convict barrack. The sickness and mortality are said to have been due to “climatic conditions”.

PRISONERS, 1908.

TABLE XLIV—*continued.*

ABSTRACT of the SANITARY SHEETS of the most UNHEALTHY JAILS, SANITARY DEFECTS, IMPROVEMENTS, SUGGESTIONS, etc.—continued.

Narsinghpur.—The medical officer in charge is of opinion that one of the causes which contributed to the large number of admissions to hospital was the use of the grosser kinds of grain for food during the period when prices ran high, added to the natural ill-effects from the use of dirty water, in regard to which the people are careless.

Mandla.—There was crowding in the under-trial and female wards for 104 days. Malaria was the principal cause of sickness, and was said to be due to innumerable breeding places for mosquitoes in the civil station.

Raipur Central.—Owing to scarcity in the district, the condition of prisoners on admission was bad and the deaths that occurred in the majority of cases resulted after short periods of confinement in jail. The number of admissions for malaria increased from 89 in 1907 to 129. The Inspector-General remarks :—“ A special report on the jail as regards its mortality is necessary and this I shall submit after the annual report has been sent in. I do not consider that the rice fields have anything to say to the mortality. The jail is in an excellent position. Until the wash water from the jail was led into sub-soil drains and the kitchen water also, the water collected in an insanitary pond, which I think had more to say to its unhealthiness (malaria) than the rice fields. There are other causes of unhealthiness which I will take up in the report”.

BOMBAY.

Hyderabad.—Overcrowding lasted from January to October and some prisoners had to be kept in tents. The hospital accommodation is said to be insufficient. An outbreak of cerebro-spinal meningitis accounted for 12 of the 34 deaths during the year.

Karwar.—The jail site is said to be low lying in comparison with the surrounding country and drainage is defective. Efforts are being made to fill up depressions.

MADRAS.

Bellary.—Worksheds were occupied to relieve overcrowding. No defects of ventilation, drainage or conservancy were reported. The water-supply was said to be very liable to contamination.

Rajahmundry.—A severe outbreak of cholera occurred during the year and dysentery and other bowel affections were unusually prevalent. The Inspector-General says that so far as the water-supply, drainage, ventilation etc., of the jail is concerned, no deterioration has taken place. Famine and cholera prevailed in the surrounding districts.

Vizagapatam.—There was overcrowding throughout the year ; it was relieved by housing prisoners in temporary sheds. Sickness and mortality were attributed chiefly to conditions of scarcity as a result of which prisoners were in a half-starved condition on their admission to jail.

Berhampur.—The accommodation in both barracks and hospital is said to be insufficient. Cholera caused 18 deaths and malaria and dysentery were prevalent.

BURMA.

Mergui—The convict ward was overcrowded throughout the year and the under-trial ward for 113 days. It is said that there was no particular local cause of the sickness and mortality. There were fifteen cases of dysentery under treatment during the year. These were chiefly *Karens* from the interior of the district, some of whom appeared to have suffered from the disease previous to their admission into jail. Three deaths occurred from this cause, in two of which well-marked signs of former dysenteric lesions were found in the large intestine. The medical officer in charge recommends the provision of (1) a new well in the garden for the wants of the jail staff, as the present one cannot be depended on or improved ; (2) a bathing shed and place for boiling prisoners' clothing outside the jail ; (3) an incinerator for destroying the excreta and discharges of patients suffering from infectious diseases ; (4) the extension of the drains, beyond the jailors' quarters. The Inspector-General remarks :—“ The estimate for providing additional accommodation for 24 convicts and 10 under-trial prisoners has not yet been sanctioned”.

Maubin.—There was no actual overcrowding as the excess number was always accommodated in one of the vacant barracks. The jail wall on the west side is too high and dangerous as no air can enter the building from that side. The single storied barracks being placed behind the others are under a still greater disadvantage. The drains inside the jail require graduating, as water does not flow in them. The jail site is damp in the rains, as the ground around is water-logged. The health of the prisoners on the whole has been bad. The medical officer in charge recommends (1) the removal of one of the single-storied barracks from the main enclosure and its re-erection in the work-yard enclosure ; (2) the removal of one of the worksheds which lies unused owing to the great reduction of the jail population ; (3) the provision of separate bathing troughs in each enclosure instead of one in the work-yard only ; (4) the provision of separate latrines for each class of prisoners instead of one general latrine which is badly situated. The Inspector-General remarks :—“ The Chief Engineer, Public Works Department, Burma, has intimated that there is no prospect of funds being available either this year (1909-1910) or the following year for the work of certain proposed additions and alterations to the jail.”

Paungde.—There was slight overcrowding, which was relieved by putting the excess number in hospital and cells and by transfers to other jails. It is said that the six prisoners admitted for malaria had the disease in their systems before admission into the jail and that the dysentery cases were mainly due to “ climatic causes.” The Inspector-General remarks :—“ The high mortality was due to an outbreak of cholera. The water-supply question is still under consideration. A tube well was sunk by the municipality near the jail, but the result was not successful.”

Prome.—There was always overcrowding on account of frequent admissions, but it was relieved once or twice a month by transferring prisoners to a central jail. In cells the ventilation was not considered sufficient by the Sanitary Commissioner, but improvements will be effected as soon as funds permit. The conditions to which dysentery, diarrhoea, dyspepsia and some of the fever and pneumonia cases were chiefly due, were the admission into jail of a large proportion of prisoners in indifferent and bad health, resulting from the opium and liquor habits, malaria and semi-starvation. The short sharp epidemic of cholera in the town from 1st April to 20th May affected the prisoners at its commencement. Within 4 days (25th to 28th April) ten prisoners were attacked, of whom seven died. The epidemic was caused through a breakdown of the municipal water works, resulting in supplies being drawn direct from the Irrawaddy, along the shore, where the river was at its lowest and was stagnant and polluted.

PRISONERS, 1908.

TABLE XLIV—*concluded.*

ABSTRACT of the SANITARY SHEETS of the most UNHEALTHY JAILS, SANITARY DEFECTS, IMPROVEMENTS SUGGESTIONS, etc.—concluded.

Myingyan Central.—There was no overcrowding. According to the latest chemical report, the water from all the wells in the jail is unfit for potable purposes. The sickness and mortality were said to have been due to :—(1) the transfer from other jails of tubercular prisoners of whom some were in a very advanced stage of the disease, and to there being no separate building for such cases ; (2) the large number of admissions of prisoners in indifferent health ; (3) the climate, which is hot and trying to men on hard labour under corrugated iron roofs. Twenty solitary cells of an improved pattern were constructed and a steam disinfecter was erected during the year. The medical officer in charge recommends that a small condensor should be provided to condense water for drinking and culinary purposes. The Inspector General remarks :—“ With a view to reducing the sickness and mortality in this jail, special orders were issued to the Superintendent about the prompt admission into hospital of prisoners falling sick, and their care and treatment when convalescing. The proposal mentioned last year about the construction of a ward for the accommodation of 50 tubercular prisoners (but capable of being further extended) is under consideration of the local Government, and it is probable that Yamethin, instead of Myingyan, will be selected as a jail for the reception of tubercular prisoners”.

PRISONERS, 1908.

TABLE XLV.

INFLUENZA by months, Jails, Groups, and Administrations.

TABLE XLVI.

CHOLERA by months, Jails, Groups, and Administrations.

JAILS* AND GROUPS.	ADMISSIONS FROM INFLUENZA IN EACH MONTH.												ADMISSIONS FROM CHOLERA IN EACH MONTH.													
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Toungoo . . . . .	..	..	..	..	..	..	..	..	..	1	2	3	6	..	..	..	..	..	..	..	..	..	..	..	..	..
Myaungmya . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	2
Bassein, Central . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1
GROUP I.—BURMA COAST AND BAY ISLANDS.	..	..	..	..	..	..	..	..	..	1	2	3	6	1	..	1	..	1	..	..	..	..	..	..	..	3
Paungde . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	..	4	
Prome . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10	..	..	..	..	..	..	..	..	10
GROUP II.—BURMA INLAND.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10	..	..	..	..	3	1	..	..	14
Cachar . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
Gauhati . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	1	..	..	..	..	..	..	..	3
GROUP III.—ASSAM.	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	2	1	..	..	..	..	..	..	4
Mymensingh . . . . .	..	..	..	..	15	..	..	..	..	..	..	..	15	..	..	..	..	7	..	..	..	..	..	..	..	7
Dacca, Central . . . . .	..	..	..	..	..	..	..	61	66	69	12	..	208	..	..	..	..	..	..	..	..	..	..	..	..	..
Presidency, Central (Europeans)	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Alipore, Central . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	2
Krishnagar . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	2
Faridpur	4	2	1	3	..	..	..	..	..	..	..	..	10	..	..	..	..	..	..	..	..	..	..	..	..	..
Rajshahi, Central . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..	..
Naya Dumka . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	28	1	..	..	..	..	..	..	4
Suri . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	30
Balasore . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	1
Cuttack . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	2
Angul . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	18	..	5	..	..	..	..	..	..	23
GROUP IV.—BENGAL AND ORISSA.	5	2	1	3	15	..	..	61	66	69	12	..	234	4	..	4	3	25	28	8	..	..	..	..	..	72
A	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2	..	2	..	..	..	..	..	5
Chaibassa . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	2
Purulia . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1
Ranchi . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	2
Palamau . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B	..	..	..	2	..	..	..	..	..	..	..	..	2	..	..	..	..	..	10	3	..	..	..	..	..	13
Gaya . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	8	..	..	..	..	..	10
Bhagalpur, Central . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1
Darbhanga . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	7	..	..	..	..	..	..	8
Muzaffarpur . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	21	..	..	..	..	..	..	21
Patna . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Azamgarh . . . . .	..	..	..	..	1	..	..	..	1	1	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..
Gorakhpur	2	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..
Allahabad, Central . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10	1	..	..	..	..	11
Do. District . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	2
Banda . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	2
Hamirpur	1	1	..	..	..	1	1	..	..	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..
Barabanki . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
Sitapur	7	6	9	13	6	4	4	2	..	..	..	..	51	..	..	..	..	..	..	..	..	..	..	..	..	1
Mainpuri . . . . .	..	..	1	..	2	..	..	..	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR.	10	7	10	15	8	6	5	2	1	1	..	..	65	..	..	3	3	2	11	33	26	1	..	..	..	71
A	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Muzaffarnagar	9	1	1	..	..	..	..	..	..	..	..	..	11	..	..	..	..	..	..	..	..	..	..	..	..	..
Meerut	10	..	1	4	19	6	..	..	..	5	10	4	59	..	..	..	..	..	..	..	..	..	..	..	..	..
B	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lahore, Central	9	10	6	1	..	..	..	..	..	..	..	..	26	..	..	..	..	..	..	..	..	..	..	..	..	..
Do. District . . . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	2
Thelum . . . . .	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
GROUP VI.—UPPER SUB-HIMALAYA.	28	11	9	5	19	6	..	..	..	5	10	4	97	..	..	..	..	..	..	..	1	1	..	..	..	2
A	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bannu	1	..	..	..	1	..	..	..	..	..	..	..	2	..												

* Jails where neither Influenza nor Cholera occurred are not shown in these tables.
For the annual ratios, see Table XLII.

JAILS, GROUPS, AND ADMINISTRATIONS.	ADMISSIONS FROM INFLUENZA IN EACH MONTH.													ADMISSIONS FROM CHOLERA IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
B																										
Muttra . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
GROUP VIII.—S. E. RAJPUT- ANA, CENTRAL INDIA AND GUJARAT . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
A																										
Sambalpur . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	5	...	...	...	...	...	6
Raipur, Central . . . . .	...	...	...	...	...	...	...	...	6	...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...
Nagpur, Central . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...
B																										
Amraoti . . . . .	...	...	5	...	...	...	...	...	...	...	5	...	10	...	...	...	...	...	...	...	...	...	...	...	...	...
Akola . . . . .	...	...	2	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP IX.—DECCAN	...	1	7	...	...	...	...	...	6	...	5	...	19	...	...	1	...	...	...	5	...	...	...	...	...	6
B																										
Palamcottah . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	2
Cuddalore . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Madras Penitentiary, Central	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	2
C																										
Rajahmundry, Central . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	43	18	...	1	2	...	64
Vizagapatam . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	23	...	...	...	...	...	25
Berhampur . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	32	...	...	...	...	32
GROUP XI.—SOUTHERN INDIA.	...	...	...	...	...	...	...	...	1	...	...	...	1	...	1	1	...	...	2	66	50	1	1	2	1	125
Russellkonda . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	22	2	3	...	...	...	...	27
GROUP XII.—HILLS	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	22	2	3	...	...	...	...	27
INDIA*	44	21	27	23	43	12	5	63	74	76	29	13	430	6	1	10	16	33	65	114	81	3	4	3	1	337
BURMA . . . . .	...	...	...	...	...	...	...	...	...	1	2	3	6	1	...	1	10	1	...	...	...	...	3	1	...	17
EASTERN BENGAL AND ASSAM	4	2	1	3	15	...	...	61	66	69	12	...	233	5	...	...	...	9	1	...	...	...	...	...	15	
BENGAL	1	...	...	2	...	...	...	...	...	...	...	...	3	...	...	8	5	20	39	46	12	...	...	...	130	
UNITED PROVINCES	29	8	12	17	27	12	5	2	1	6	10	4	133	...	...	...	1	...	1	...	14	1	...	...	...	17
PUNJAB	9	10	7	1	...	...	...	...	...	...	...	6	33	...	...	...	...	3	...	...	1	1	...	...	...	5
N.-W. FRONTIER PROVINCE	1	...	...	...	1	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...
CENTRAL PROVINCES . . . . .	...	1	7	...	...	...	...	...	6	...	5	...	19	...	...	...	...	...	...	...	...	...	...	...	...
BOMBAY . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	
MADRAS . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	1	...	1	1	...	...	24	68	53	1	1	2	1	152

* Excluding Andamans.

TABLE XLVII.

ENTERIC FEVER by months, Jails, Groups, and Administrations.

TABLE XLVIII.

PYREXIA OF UNCERTAIN ORIGIN by months, Jails, Groups, and Administrations.

JAILS* AND GROUPS.	ADMISSIONS FROM ENTERIC FEVER IN EACH MONTH.												ADMISSIONS FROM PYREXIA OF UNCERTAIN ORIGIN EACH MONTH.													
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Mergui	1	..	1	..	..	..	2	..	..	..	..	2	..	..	..	..	4	..	6	
Tavoy	
Moulmein	1	1	..	..	..	..	..	..	..	..	..	..	..	..
Toungoo	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Rangoon, Central (Natives)	1	..	..	..	..	..	..	..	..	..	..	1	14	6	13	12	4	20	23	11	4	11	10	137	
Bassein, Central	1	..	..	1	..	..	..	2	..	..	..	4	3	2	1	..	..	..	..	..
Insein, Central	10	
Henzada	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Akyab	1	..	..	1	..	..	..	2	
GROUP I.—BURMA COAST AND BAY ISLANDS.	..	1	..	..	..	1	3	..	2	..	..	1	8	14	6	13	16	9	23	24	12	5	12	14	12	160
Thayetmyo, Central	2	..	..	..	..	..	..	..	..	..	2	
Myingyan, Central	1	1	3	3	1	..	..	9	..	2	1	..	..	..	..	3	2	1	5	..	14
Mandalay, Central	1	..	..	..	..	..	1	..	..	..	7	..	1	6	3	8	2	3	6	36
Shwebo	2	1	..	..	..	..	..	..	..	..	..	..	3	2	5	3	2	..	..	..	..	..	..	..	1	13
Bhamo	1	1	..	..	..	..	..	..	..	..	2
Katha	1	..	..	..	..	..	..	..	1
GROUP II.—BURMA INLAND	2	1	..	..	..	1	2	3	3	1	..	..	13	2	9	5	10	1	1	6	6	10	3	8	7	68
Mymensingh	1	1	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..
Jessore	3	7	3	..	..	1	..	6	1	..	..	21
Alipore Central	1	..	..	..	..	..	..	..	..	3	3	
Howrah	1	..	..	..	..	2	1	2	2	1	1	..	10	1	1	..	..	..	..	..	..	..	..	..	..	2
Krishnagar	4	..	4	3	1	6	6	1	2	27	..	..	..	..	..	..	..	..	..	..	..	..	..
Rajshahi, Central	7	4	10	4	3	8	2	4	42
Malda	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Dinajpur	4	..	..	..	..	..	..	..	..	..	4
Cuttack
GROUP IV.—BENGAL AND ORISSA.	1	..	..	6	1	6	4	3	8	7	2	2	40	1	5	11	3	7	4	11	4	9	9	2	7	73
A	2	2	1	..	..	..	..	5	6	5	21
Chaibassa	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Hazaribagh, Central
B	1	..	..	..	..	..	..	..	..	..	1
Gaya	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Muzaffarpur	1	..	..	..	..	..	..	..	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..
Buxar, Central	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Azamgarh	1	..	..	..	..	..	..	1	..	..	..	..	..	..
Sultanpur	1	..	..	..	..	..	1
Benares District	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Allahabad, Central	4	6	4	12	18	20	2	..	145	29	9	249	
Orai	2	..	..	..	..	..	..	2
Sitapur	1	1	..	..	..	..	..	..	2
Mainpuri	2	1	2	3	4	..	5	5	..	..	..	22
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR.	1	2	1	..	..	1	..	..	..	1	6	4	8	8	16	22	27	4	5	5	150	35	14	238
A	1	..	..	..	..	..	..	..	..	..	1
Pilibhit	1	..	..	1	..	..	..	..	..	..	2	..	..	..	..	1	1	..	..	..	..	..	..	2
Bareilly, Central
Dehra Dun	1	1	..	..	..	..	..	..	..
B	1	1	..	..	..	..	2
Ludhiana	1	..	..	..	..	..	..	..	1	..	..	2	..	3	..	3	1	14	..	3	..	26
Ferozepore	8	2	1	6	12	9	5	10	..	..	..	..	53
Lahore, Central	1	1	1	..	..	3	..	..	..	..	..	3	2	..	..	..	..	..	7
„ District	2	..	..	2	..	..	..	..	..	1	5	..	..	1	1	1	9
„ Female
Sialkot	1	1	..	2	..	..	..	..	..	..	..	..	..	..	..	..	1
Jhelum	2	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	1
Rawalpindi	1	..	..	..	..	..	..	..	1

*Jails where neither Enteric Fever nor Pyrexia of uncertain origin occurred are not shown in these tables. For the annual ratios, see Table XI.II.

JAILS, GROUPS, AND ADMINISTRATIONS.	ADMISSIONS FROM ENTERIC FEVER IN EACH MONTH.												ADMISSIONS FROM PYREXIA OF UNCERTAIN ORIGIN IN EACH MONTH.													
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
A																										
Mianwali . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	2
Lyallpur . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Jhang . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	3
Montgomery, Central	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
Mooltan District	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Dera Ismail Khan	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Dera Ghazi Khan	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	3
C																										
Hyderabad, Central	...	1	...	1	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	1	...	...	...	1
Karachi . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	8	...	2	...	1	3	3	2	...	...	24
GROUP VII.—N.-W. FRONTIER, INDUS VALLEY, AND N.-W. RAJPUTANA	...	1	1	1	...	1	...	...	...	...	...	...	4	...	5	8	1	4	...	2	6	4	2	3	...	35
B																										
Agra, Central . . . . .	...	...	...	...	...	...	...	...	5	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP VIII.—S. E. RAJPUTANA, CENTRAL INDIA, AND GUJARAT	...	...	...	...	...	...	...	...	5	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...
A																										
Bilaspur . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
Sambalpur . . . . .	...	...	...	...	...	...	...	1	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Raipur, Central . . . . .	...	...	...	...	...	...	1	1	...	...	...	...	1	...	...	...	...	...	...	3	5	...	...	...	...	8
Balaghat . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
Nagpur, Central	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	7	5	5	7	7	...	...	...	...	33
Wardha . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1
B																										
Bijapur . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	12	6	22
Deccan Gang . . . . .	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Dharwar . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	2
GROUP IX.—DECCAN	...	...	...	...	1	...	1	2	...	...	...	...	4	...	...	2	7	5	6	10	13	...	6	12	7	63
Ratnagiri . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Karwar . . . . .	...	...	...	...	...	...	...	1	2	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	5
Mangalore . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cannanore, Central	1	5	...	...	...	...	...	...	...	...	...	...	6	...	...	...	...	...	...	...	1	...	2	10	13	
GROUP X.—WESTERN COAST	1	5	...	...	...	...	...	1	2	...	...	...	9	...	...	...	...	1	...	...	1	1	4	13	20	
A																										
Salem, Central . . . . .	...	...	...	...	...	...	1	2	2	1	...	...	6	...	...	...	...	...	...	...	1	1	...	...	...	2
Coimbatore, Central	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
B																										
Madura . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	...	1	3	1	1	4	2	11
Trichinopoly, Central	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6
Vellore, Central . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	9	6	11	1	4	3	7	14	9	14	79
Madras . . . . .	...	...	...	...	...	...	...	...	1	1	...	...	2	...	...	...	...	...	...	...	3	7	6	2	2	20
Penitentiary, Central	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
C																										
Rajahmundry, Central . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	5	...	...	...	...	2	1	1	...	...	...	...	9
Vizagapatam . . . . .	...	...	...	...	1	1	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Berhampur	1	...	...	...	...	...	...	...	...	...	...	1	2	...	...	...	1	...	...	...	...	...	...	...	...	1
GROUP XI.—SOUTHERN INDIA	1	...	...	...	1	1	1	2	3	2	...	1	12	7	...	9	9	12	3	6	11	17	22	15	18	129
INDIA*	5	8	3	9	5	13	11	13	24	14	3	5	113	35	35	61	68	77	79	78	69	66	208	97	79	953
BURMA	2	2	...	...	...	2	5	3	5	1	...	1	21	16	15	18	26	10	24	30	18	15	15	22	19	228
EASTERN BENGAL AND ASSAM	...	...	...	6	1	4	3	1	6	6	1	2	30	...	...	...	...	7	...	10	4	3	8	2	4	42
BENGAL	1	...	...	2	...	2	2	4	2	1	1	1	16	1	5	14	5	1	...	1	...	6	6	8	...	53
UNITED PROVINCES	...	...	2	...	1	1	...	...	5	...	...	...	9	4	8	6	14	22	28	4	5	...	145	29	9	279
PUNJAB	...	...	1	...	1	2	...	1	1	4	1	...	11	8	2	4	7	18	13	16	15	15	3	7	1	109
NORTH-WEST FRONTIER PROVINCE	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
CENTRAL PROVINCES	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	2	7	5	6	10	13	...	1	...	...	44
BOMBAY	...	1	...	1	1	...	...	...	...	...	...	...	3	...	5	8	...	2	...	1	3	4	8	14	10	55
MADRAS	2	5	...	...	1	1	1	3	5	2	...	1	21	7	...	9	9	12	4	6	11	18	22	17	28	143
ANDAMANS	...	1	...	...	...	...	1	...	1	...	...	...	3	80	27	2	3	5	6	6	2	1	1	...	...	33
INDIA†	5	9	3	9	5	13	12	13	25	14	3	5	116	116	62	63	71	82	85	84	71	67	209	97	79	1,086

* Excluding Andamans.

† Including Andamans.

TABLE XLIX.

MALARIA by months, Jails, Groups, and Administrations.

TABLE L.

PNEUMONIA by months, Jails, Groups, and Administrations.

JAILS* AND GROUPS.	ADMISSIONS FROM MALARIA IN EACH MONTH.													ADMISSIONS FROM PNEUMONIA IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Mergui	2	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Tavoy	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Moulmein . . . . .	...	...	...	1	5	7	3	1	3	5	2	4	31	...	...	...	...	...	...	...	...	...	1	1	...	2
Shwegyin . . . . .	...	...	1	2	1	1	1	...	...	...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...
Toungoo . . . . .	...	1	...	...	...	2	...	2	...	2	...	1	8	...	1	...	...	...	...	...	...	...	...	...	...	1
Rangoon, Central (Europeans) . . . . .	...	...	...	...	...	...	...	...	1	1	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Rangoon, Central, (Natives)	5	1	1	1	2	16	21	9	12	6	7	5	86	...	...	1	...	2	...	...	...	1	...	...	...	4
Maubin . . . . .	...	...	...	...	...	...	...	...	...	2	4	5	11	...	...	...	...	...	...	...	...	...	...	...	...	...
Myaungmya . . . . .	...	...	...	1	...	...	1	1	1	5	4	4	17	...	...	1	...	...	...	...	...	...	...	...	...	1
Bassein, Central . . . . .	...	2	1	...	...	...	7	3	3	6	3	2	27	...	...	...	...	...	...	...	...	1	...	...	...	1
Insein	13	6	4	...	3	11	12	14	5	12	15	8	103	...	...	...	1	...	...	...	...	3	...	...	...	4
Henzada . . . . .	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Myanaung . . . . .	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Sandoway . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1
Kyaukpyu . . . . .	...	...	...	...	...	2	5	5	1	...	...	5	18	...	...	...	...	...	...	...	...	1	...	...	...	1
Akyab . . . . .	...	...	1	...	...	...	...	1	1	...	2	...	5	...	...	...	1	...	...	...	1	1	...	...	...	3
GROUP I.—BURMA COAST AND BAY ISLANDS	21	10	8	5	11	39	50	36	27	39	39	34	319	...	2	2	...	4	...	...	...	3	7	...	1	19
Paungde	2	...	1	1	...	...	...	...	...	2	...	...	6	...	...	...	1	...	...	...	...	...	...	...	...	1
Prome . . . . .	...	4	1	2	5	1	1	2	5	3	7	2	33	...	...	...	...	...	...	...	1	...	2	1	...	5
Thayetmyo, Central . . . . .	...	...	...	...	1	...	2	9	...	1	4	...	17	...	1	...	1	...	...	...	...	2	2	1	...	7
Magwe . . . . .	...	...	1	...	...	1	...	2	2	3	2	...	11	...	...	...	...	...	...	...	...	...	...	...	...	...
Yamethin . . . . .	...	...	...	...	...	...	1	...	...	...	...	2	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Meiktila . . . . .	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Pagan . . . . .	...	...	...	...	...	1	1	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...
Mingyan, Central . . . . .	...	4	...	1	...	1	...	...	4	2	1	...	13	2	1	2	...	...	...	...	1	...	1	1	...	8
Mandalay	4	2	5	3	4	12	4	4	2	10	5	5	60	3	...	1	...	...	...	...	1	1	...	...	...	6
Monywa . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Shwebo	3	...	...	...	...	...	...	...	1	...	...	1	5	1	...	...	...	...	...	...	...	...	...	...	...	1
Mogok . . . . .	...	...	...	...	...	...	1	1	...	...	1	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Bhamo . . . . .	...	...	...	...	...	2	1	5	2	...	3	...	13	...	...	...	1	...	1	...	...	...	...	...	...	2
Katha . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Kindat	1	...	...	1	1	...	1	2	1	...	...	...	7	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP II.—BURMA INLAND	10	10	8	8	11	18	13	25	17	21	23	11	175	6	2	3	4	...	...	1	2	2	3	5	3	31
Cachar	2	3	1	4	2	2	5	2	3	2	3	2	31	...	...	...	...	...	1	1	1	...	1	...	...	4
Sibsagar . . . . .	...	1	...	5	2	2	...	5	4	...	...	...	19	...	...	...	...	...	...	...	...	...	...	...	...	...
Dibrugarh . . . . .	...	...	2	2	1	7	50	31	9	7	7	4	129	...	...	...	...	...	1	...	1	...	...	...	...	2
Tezpur . . . . .	...	1	...	1	...	2	8	5	3	4	5	2	31	...	...	...	...	...	...	...	...	...	...	...	...	...
Gauhati	2	3	5	5	5	20	28	8	3	2	4	4	89	...	...	...	...	1	...	...	...	...	...	...	...	1
Dhubri . . . . .	...	...	...	1	6	3	9	8	3	3	3	4	40	...	...	...	...	...	...	...	...	...	...	...	...	...
Sylhet	13	5	17	21	78	113	115	71	47	54	55	33	622	...	...	1	1	1	1	...	...	...	1	...	...	5
GROUP III.—ASSAM	17	13	25	39	94	149	224	130	72	72	77	49	961	...	...	...	1	2	1	3	1	2	...	2	...	12
Mymensingh	9	6	9	10	14	11	3	9	21	18	25	24	159	...	1	...	1	...	...	...	...	3	...	...	...	5
Dacca, Central	14	4	15	8	14	8	21	31	35	20	9	9	188	...	...	2	...	...	...	...	2	5	...	1	3	13
Tippera	2	2	2	3	2	6	4	7	4	9	6	4	51	...	...	2	...	...	...	...	1	...	...	...	...	3
Chittagong	1	...	3	1	6	1	...	1	5	2	...	1	21	...	...	1	...	...	...	...	...	...	2	...	...	4
Noakhali	1	...	2	1	1	2	...	...	2	5	9	2	27	...	...	...	...	...	...	...	...	...	...	...	...	...
Bakarganj . . . . .	...	...	...	...	1	...	1	6	13	25</																

JAILS AND GROUPS.	ADMISSIONS FROM MALARIA IN EACH MONTH.												ADMISSIONS FROM PNEUMONIA IN EACH MONTH.													
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
A																										
Chaibassa	8	8	..	..	..	..	..	..	1	..	3	..	20	..	..	..	..	..	..	..	1	..	..	..	..	1
Purulia	1	4	3	4	1	6	3	4	2	9	5	6	48	1	..	..	1	..	1	..	..	..	..	..	..	3
Ranchi	3	1	1	2	..	1	2	10	1	5	4	1	31	..	..	..	..	..	..	..	..	..	3	2	6	
Palamanu	2	5	4	7	1	3	2	9	9	5	..	1	48	1	..	2	1	1	..	1	..	..	..	..	..	6
Hazaribagh, Central	21	16	20	20	18	34	21	49	23	22	25	12	281	..	..	..	..	..	3	..	..	..	..	1	..	4
B																										
Gaya . . . . .	..	..	..	8	3	..	2	5	4	12	8	11	53	..	..	1	..	..	1	1	1	2	..	1	5	11
Bhagalpur, Central	12	15	25	50	50	21	22	23	33	28	16	10	305	3	2	3	1	..	1	1	..	2	2	..	2	17
Monghyr	6	10	10	9	4	..	7	9	7	17	23	..	102	..	..	..	..	..	..	..	..	..	..	..	..	..
Darbhanga	1	2	1	5	..	..	..	..	2	..	..	1	12	..	..	1	..	..	..	..	..	..	..	..	..	1
Champaran	8	1	4	3	5	4	1	1	1	4	6	..	38	..	1	1	..	..	..	..	..	1	1	..	..	4
Muzaffarpur	2	..	..	2	7	7	6	4	7	2	5	2	44	..	..	2	..	..	1	..	1	..	1	..	..	5
Patna	6	2	1	8	9	3	10	9	4	11	8	7	78	1	..	1	..	..	..	..	..	..	1	..	..	3
Arrah	6	5	11	6	4	4	5	3	3	7	3	2	59	..	..	..	..	..	1	..	..	..	..	..	..	1
Chapra	2	4	1	..	1	8	5	8	4	11	5	5	54	..	..	..	..	..	..	..	..	..	..	..	..	..
Buxar, Central	16	3	16	32	14	34	17	10	6	30	90	94	362	2	1	..	..	1	1	..	1	..	3	..	..	9
Korantadih . . . . .	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Ghazipur	4	..	1	3	6	2	3	4	9	159	50	7	248	1	1	..	..	..	..	..	3	1	..	1	..	7
Azamgarh	18	2	6	9	9	2	5	4	6	10	17	6	94	1	..	1	..	1	..	..	1	..	1	..	..	5
Gorakhpur	13	18	4	8	12	9	15	8	7	14	9	6	123	2	..	..	..	3	..	..	3	..	..	..	..	9
Basti	5	..	2	2	2	10	3	5	5	19	15	7	74	1	5	10	..	1	2	..	1	..	1	..	..	22
Fyzabad	1	2	6	2	7	14	12	7	6	10	11	7	85	..	1	1	..	2	1	2	..	..	1	1	..	9
Sultanpur	7	10	9	7	10	8	5	4	19	29	18	13	139	1	1	2	..	1	..	1	..	..	..	1	..	7
Rai Bareilly . . . . .	..	2	..	1	..	2	2	1	2	11	8	6	35	..	..	..	..	..	..	..	..	..	1	1	..	1
Partabgarh	1	2	1	4	6	4	2	6	9	10	7	9	61	1	..	3	..	1	..	1	..	1	1	1	..	5
Jaunpur	4	1	3	5	6	5	4	6	8	9	19	9	79	1	..	..	..	..	..	..	..	1	1	1	..	6
Benares, Central	13	10	22	33	26	12	23	18	47	71	88	45	408	1	1	..	1	..	2	..	..	..	2	..	..	7
„ District	6	1	5	4	7	1	7	6	5	11	9	4	66	..	..	1	..	..	..	..	..	1	..	2	..	4
Mirzapur . . . . .	..	..	..	..	..	..	1	1	..	1	2	1	6	..	1	..	..	..	..	..	..	..	..	..	..	1
Allahabad, Central	1	..	1	6	3	3	8	17	23	12	27	6	107	..	..	..	..	1	2	..	1	..	1	..	..	5
„ District	1	1	2	3	1	1	2	7	21	23	7	10	79	..	..	2	3	..	1	3	..	1	1	1	..	12
Karwi . . . . .	..	..	..	..	1	..	..	1	..	..	3	..	5	..	..	1	..	..	1	..	..	..	..	..	..	2
Banda . . . . .	..	1	1	3	..	3	4	5	18	10	15	9	60	1	..	1	..	..	..	..	..	2	..	1	..	5
Fatehpur	2	2	2	3	5	4	5	13	23	11	10	2	82	3	..	..	..	..	1	..	..	1	..	1	..	6
Hamirpur	4	2	2	7	5	1	..	8	17	15	12	3	76	..	..	..	..	1	..	..	..	..	..	..	..	1
Orai . . . . .	..	2	1	1	4	..	2	15	17	17	5	3	67	1	..	1	..	..	..	..	..	..	..	..	..	2
Cawnpore . . . . .	..	1	4	8	7	4	2	9	29	54	44	38	200	..	..	..	..	1	..	..	..	..	1	1	..	3
Unao	1	..	..	..	..	2	1	3	6	7	2	2	24	..	..	..	..	1	..	..	..	..	..	..	..	1
Lucknow, Central	..	..	1	3	2	1	2	2	1	2	..	..	14	2	1	2	1	..	1	..	..	..	3	2	..	12
„ District	2	..	1	1	4	3	..	1	4	9	3	2	30	3	..	..	1	..	..	..	..	1	..	..	..	5
Barabanki	1	..	1	4	10	3	3	4	13	30	3	1	73	..	..	..	1	..	1	..	1	..	1	..	..	4
Gonda	1	1	..	4	7	7	3	4	4	22	21	2	76	1	..	..	..	..	..	..	..	..	1	..	..	2
Bahraich	7	18	15	8	6	14	7	5	21	23	16	5	145	3	1	1	2	..	..	1	..	1	1	1	..	11
Kheri	5	1	6	4	4	4	3	8	7	8	4	..	54	..	..	..	1	1	..	..	..	1	..	..	..	3
Sitapur	1	3	3	3	15	10	16	24	56	116	38	34	319	10	1	10	6	1	1	..	1	1	1	1	..	32
Hardoi	1	..	3	..	..	3	1	2	24	37	19	4	94	..	1	2	1	..	..	..	..	..	..	1	..	4
Etawah . . . . .	..	1	..	2	6	12	1	13	7	2	2	1	47	1	1	..	..	..	..	..	..	2	2	1	..	8
Mainpuri	5	1	2	4	11	10	2	23	159	88	102	73	480	1	1	..	1	..	..	..	..	1	1	3	3	14
Etah	2	4	4	4	..	4	2	13	45	37	13	9	137	..	1	2	..	2	1	..	1	1	1	1	7	14
Fatehgarh, Central	4	2	7	22	12	9	7	9	21	39	12	6	150	2	..	1	..	..	..	1	1	1	1	1	..	14
„ District	3	3	1	2	12	8	5	13	29	12	13	6	107	2	..	..	..	..	..	..	..	..	3	..	..	5
GROUP V.—GANGETIC PLAIN AND CHUTIA NAGPUR	207	167	213	326	323	300	261	413	775	1,091	825	488	5,389	46	21	49	23	12	18	21	9	19	19	29	41	307
A																										
Shahjahanpur	3	3	2	5	5	13	20	38	45	32	29	15	210	..	..	1	..	..	..	..	..	..	..	..	..	1
Pilibhit . . . . .	..	..	1	..	..	..	1	1	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..
Bareilly, Central	78	57	47	63	61	46	34	15	21	34	211	165	832	3	..	..	2	4	8	4	2	3	5	3	17	51
„ District	22	8	14	11	14	19	35	71	83	84	27	12	400	7	6	4	4	1	1	2	1	4	9	6	8	53
Budaun	8	3	3	19	21	25	23	20	59	51	57	46	335	2	..	12	1	1	1	1	..	2	..	..	..	20
Aligarh	5	2	..	1	6	4	4	22	61	41	22	14	182	..	1	3	..	1	..	..	1	..	..	7	..	13
Bulandshahr	2	1	1	2	6	7	9	32	87	69	48	22	286	..	2	1	..	..	2	..	1	..	..	1	..	7
Moradabad	13	5	4	8	2	1	15	82	140	79	34	17	400	4	1	..	..	..	..	..	..	3	5	..	..	13
Bijnor	7	..	2	2	2	1	1	8	23	25	1	..	72	4	..	..	..	..	..	..	..	1	2	3	..	10
Dehra Dun	1	..	1	2	5	2	4	5	21	4	..	..	45	1	..	1	..	..	..	..	..	..	..	..	..	2
Saharanpur	11	2	7	4	5	16	11	24	5	19	10	14	128	..	..	1	..	..	..	..	1	..	..	..	..	2
Muzaffarnagar	1	1	5	15	12	12	4	44	38	25	22	20	201	2	..	..	..	2	..	..	..	2	2	..	..	8
Meerut . . . . .	..	1	3	5	6	5	3	18	60	40	14	8	163	..	..	1	1	1	..	1	2	4	3	5	..	18
Delhi	9	6	3	5	1	6	8	30	32																	

PRISONERS, 1908.

TABLE XLIX—concluded.

MALARIA by months, Jails, Groups and Administrations.

JAILS AND GROUPS.	ADMISSIONS FROM MALARIA IN EACH MONTH.												TOTAL.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
A													
Peshawar	15	9	13	8	12	10	8	40	146	252	164	60	737
Kohat . . . . .	...	...	1	1	3	2	2	1	...	...	1	4	15
Bannu . . . . .	...	...	...	...	...	2	...	1	1	...	1	2	7
Shahpur	2	...	2	2	2	1	...	7	9	30	16	12	83
Mianwali	3	3	2	...	...	...	...	...	...	1	1	...	10
Lyallpur	2	...	2	1	1	2	1	14	8	7	3	21	62
Jhang	1	...	...	...	3	...	2	1	2	15	14	14	52
Montgomery, Central	24	21	12	10	11	16	9	5	3	7	11	19	148
Mooltan, Central . .	5	1	7	6	6	5	3	3	2	8	19	8	73
" District . . .	...	...	1	...	...	...	...	...	7	34	12	16	70
Dera Ismail Khan . .	3	...	8	9	17	15	5	7	16	14	19	22	135
Dera Ghazi Khan . .	5	1	3	1	4	4	1	...	1	3	3	...	26
B													
Sibi	3	1	...	1	2	1	...	1	...	2	3	...	14
C													
Sukkur	1	1	4	5	3	1	1	1	5	3	...	1	26
Sind Gang	9	7	7	7	13	12	7	8	8	11	6	3	98
Hyderabad, Central	8	13	15	9	14	16	10	7	7	15	11	6	131
Karachi . . . . .	...	...	...	...	...	...	...	...	...	...	4	...	4
GROUP VII.—N.-W. FRONTIER, INDUS VALLEY, AND N.-W. RAJPUTANA . .	81	57	77	60	91	87	49	96	215	402	288	188	1,691
A													
Rajkot . . . . .	...	1	...	...	...	...	...	...	...	...	...	...	1
Ahmedabad, Central	4	...	...	3	...	1	7	10	3	5	5	5	43
B													
Ajmer	2	2	1	10	...	1	2	12	9	5	1	...	45
Muttra	12	6	3	2	6	10	4	19	113	70	28	15	288
Agra, Central	3	16	15	20	18	5	15	47	100	61	37	27	364
" District	1	2	3	2	6	3	...	7	9	16	4	3	56
Jhansi	6	3	7	6	9	5	9	11	14	10	4	7	91
Lalitpur	2	...	1	...	...	1	...	1	5	3	...	1	14
GROUP VIII.—S.-E. RAJPUTANA, CENTRAL INDIA, AND GUJARAT . .	30	30	30	43	39	26	37	107	253	170	79	58	902
A													
Damoh	1	1	2	2	1	1	...	2	6	12	...	2	30
Saugor	5	4	4	4	2	...	3	1	15	9	4	1	52
Jubbulpore, Central	1	1	1	1	3	1	8	11	56	61	43	5	192
Narsinghpur . . . .	...	...	...	...	...	...	...	...	1	2	...	...	3
Mandla . . . . .	...	...	...	...	...	2	...	...	2	...	1	...	5
Bilaspur	1	1	...	2	1	...	...	1	1	2	1	...	10
Sambalpur	1	4	4	5	4	8	5	15	8	10	5	8	77
Raipur, Central . . .	6	3	8	4	5	11	3	3	31	29	18	9	136
Balaghat . . . . .	...	...	1	1	1	...	...	...	4	1	...	...	8
Seoni	1	...	...	...	...	...	...	...	...	...	...	...	1
Chhindwara	2	...	...	...	1	...	...	1	...	1	...	...	5
Hoshangabad	1	...	1	1	...	...	...	1	4	...	...	3	11
Nimar	1	...	...	...	...	...	...	1	...	1	2	1	6
Betul . . . . .	...	1	1	...	2	...	...	...	...	...	...	...	4
Nagpur, Central . . .	8	4	3	1	...	4	11	37	109	130	95	59	461
Wardha	1	2	...	...	...	...	...	...	...	...	...	...	3
Chanda	1	...	...	1	...	2	1	2	...	1	...	...	8
B													
Secunderabad	2	...	...	1	1	1	...	...	4	6	...	2	17
Yeotmal . . . . .	...	...	3	1	1	...	1	2	...	3	...	...	11
Amraoti	2	...	...	...	...	...	...	...	...	...	1	...	3
Akola	1	...	4	1	...	...	2	...	2	3	2	...	15
Buldana . . . . .	...	1	...	...	...	...	1	...	1	...	...	...	3
Dhulia	8	3	6	3	...	...	3	...	1	1	2	1	28
Yerrowda, Central . .	42	31	15	26	18	13	14	14	12	23	35	29	272
Bijapur . . . . .	...	2	6	2	2	1	6	9	9	1	1	...	39
Deccan Gang	1	1	...	6	7	5	2	1	8	22	16	15	84
Dharwar	15	9	36	6	4	4	6	8	5	4	9	5	111
GROUP IX.—DECCAN . .	101	68	95	68	53	53	66	109	279	322	235	140	1,589
Thana . . . . .	...	2	5	8	4	3	14	13	6	10	7	4	76
Bombay, Common . . .	3	1	...	4	11	5	2	5	6	8	...	3	48
" House of Correction	...	...	...	1	...	...	...	...	1	1	...	...	3
Ratnagiri . . . . .	...	...	...	1	...	...	1	1	...	...	1	...	4
Karwar . . . . .	...	...	1	2	7	1	6	1	6	1	...	1	26
Mangalore	1	...	...	1	1	...	...	...	...	...	...	...	3
Cannanore, Central	6	9	4	3	2	1	5	10	8	24	28	2	102
GROUP X.—WESTERN COAST . .	10	12	10	20	25	10	28	30	27	44	36	10	262

TABLE L—concluded.

PNEUMONIA by months, Jails, Groups and Administrations.

ADMISSIONS FROM PNEUMONIA IN EACH MONTH.													
January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	
6	4	...	2	2	1	1	...	2	...	...	3	21
...	1	...	2	1	2	6	
1	1	1	
...	2	
...	1	...	...	...	...	...	...	...	...	...	...	...
...	...	1	1	...	...	...	...	...	...	...	...	2
1	...	2	1	...	2	3	...	...	2	...	3	14
1	...	3	...	...	...	...	2	1	...	2	...	9
5	2	...	1	1	...	1	1	...	...	1	4	16
...	...	2	...	...	...	1	...	...	...	1	...	4
...	...	1	...	...	...	...	...	...	...	...	...	1
...	1	1	
3	1	1	...	...	1	1	...	...	...	...	2	9
8	14	3	3	...	1	2	...	1	2	4	6	44	
10	5	6	4	2	1	3	3	2	3	4	13	56	
...	1	...	...	...	...	...	...	1	
35	27	19	12	5	7	12	7	6	9	11	38	183	
...	1	...	1	...	...	...	...	...
...	4	2	8	
...	1	1	...	2	
1	2	1	2	3	9	
17	3	2	4	2	5	3	3	2	41	
1	...	6	2	2	1	1	4	1	18	
...	...	2	1	1	...	7	11	
...	
19	5	10	7	5	1	7	6	14	15	89	
...	1	1	2	
...	1	1	2	
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JAILS, GROUPS, AND ADMINIS- TRATIONS.	ADMISSIONS FROM MALARIA IN EACH MONTH.													ADMISSIONS FROM PNEUMONIA IN EACH MONTH.												
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
A																										
Bellary, Central .	10	7	2	3	4	5	4	7	12	4	12	5	75	...	...	4	1	...	...	1	...	1	...	...	...	7
Salem " .	5	1	2	2	6	3	4	4	17	5	5	1	55	...	1	1	...	1	1	...	...	...	2	1	1	8
Coimbatore, Central	4	5	5	2	1	1	2	1	3	...	1	...	25	...	2	2	...	1	4	1	...	...	...	2	...	12
B																										
Palamcottah . .	2	...	1	2	1	2	...	...	...	...	...	...	8	...	...	...	...	...	...	...	2	...	...	...	1	3
Madura	3	1	1	1	...	...	...	1	1	...	1	2	12	...	...	...	...	...	...	1	...	...	...	...	1	2
Trichinopoly, Central	4	2	1	...	...	1	...	...	...	5	10	9	32	...	...	...	...	1	...	...	...	...	...	...	...	1
Tanjore . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
Cuddalore . . .	...	...	...	1	1	...	2	...	2	2	...	...	8	...	...	...	...	...	...	...	...	...	...	...	...	...
Vellore, Central .	4	1	...	3	1	3	3	...	1	2	...	2	20	...	2	2	2	...	1	...	2	1	3	2	...	15
Madras Peniten- tiary, Central . }	1	2	...	4	...	1	2	...	...	...	...	1	11	1	...	1	...	...	1	...	...	...	1	1	1	6
C																										
Rajahmundry, Cen- tral	10	9	5	8	1	1	4	3	3	6	11	13	74	...	3	1	...	...	...	2	1	1	...	2	...	10
Vizagapatam . .	8	3	5	4	66	148	19	7	24	15	16	12	327	1	2	1	...	3	1	...	...	1	1	4	...	15
Berhampur . . .	...	...	...	1	1	...	...	...	1	2	5	9	19	...	...	...	...	...	...	...	...	...	1	1	...	2
GROUP XI.— SOUTHERN INDIA }	51	31	22	31	82	165	40	23	64	42	61	54	666	2	10	12	3	6	8	4	6	4	8	8	11	82
Aijal . . . . .	...	...	...	...	...	2	1	...	2	...	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...
Kohima	1	...	...	...	...	...	1	...	1	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Shillong	1	...	...	...	...	...	4	...	2	...	2	...	9	...	...	1	...	...	...	...	...	...	...	...	...	1
Darjeeling . . .	2	2	1	2	1	2	2	...	3	...	...	2	17	...	...	...	...	...	...	...	...	...	...	...	...	...
Almora . . . .	...	...	...	...	...	...	...	3	2	...	1	1	7	...	...	...	2	...	...	...	...	...	...	...	...	2
Pauri . . . . .	...	...	...	...	...	...	...	...	1	...	...	1	6	...	...	...	...	...	...	...	...	...	...	...	...	...
Naini Tal . . .	...	1	...	...	...	1	1	2	10	11	...	...	26	...	...	...	1	...	...	...	...	...	...	...	...	1
Abbotabad . . .	...	1	1	1	1	1	2	2	1	1	...	...	11	...	...	...	1	...	...	...	...	...	...	...	...	1
Quetta	2	1	3	2	5	...	2	3	5	3	4	1	31	...	...	...	...	...	...	...	...	1	...	...	...	1
Mercara . . . .	...	...	...	...	...	...	1	...	1	...	...	2	4	...	...	1	...	1	...	...	...	...	1	...	...	4
Russellkonda . .	...	...	2	...	1	...	1	...	...	...	...	...	4	...	...	...	...	1	...	...	...	...	...	...	...	1
GROUP XII.— HILLS }	10	5	7	5	8	6	15	10	28	15	7	7	123	...	...	1	1	4	2	...	...	...	2	...	1	11
EXTRA INDIA:— ADEN }	1	...	...	1	...	...	...	...	...	...	...	1	3	...	...	...	...	...	...	...	...	...	...	...	...	...
INDIA* }	926	662	824	967	1,132	1,217	1,267	1,803	3,084	3,634	2,768	1,755	20,039	175	108	148	75	66	62	64	49	79	105	118	210	1,259
BURMA	31	20	16	13	22	57	63	61	44	60	62	45	494	6	4	5	4	4	...	1	2	5	10	5	4	50
EASTERN BENGAL AND ASSAM . . }	82	53	98	117	180	216	312	221	211	215	191	121	2,017	1	4	8	10	5	2	5	10	12	4	8	13	82
BENGAL	217	180	221	266	242	231	305	421	389	577	461	346	3,856	12	10	17	7	8	9	14	2	12	7	16	19	133
UNITED PROVINCES	292	202	235	337	391	352	351	739	1,565	1,602	1,173	724	7,963	80	32	74	33	27	24	21	12	31	43	47	92	516
PUNJAB	95	64	76	63	70	79	59	121	311	471	335	216	1,960	43	21	12	6	7	7	8	8	7	22	15	34	190
N.-W. F. PROV- INCE }	18	10	23	19	33	30	17	51	164	267	185	88	905	6	4	2	2	3	1	2	1	2	2	2	6	33
CENTRAL PROV- INCES }	32	18	28	19	17	21	30	62	232	255	167	80	961	3	2	...	1	2	1	3	...	1	1	3	20	
BOMBAY	92	71	95	84	83	62	79	78	77	105	97	74	997	22	21	8	4	5	7	4	5	5	14	26	...	136
MADRAS	58	40	28	35	86	166	46	33	72	66	89	56	775	2	10	3	7	11	5	7	5	8	8	11	...	89
ANDAMANS . . .	813	749	955	907	1,115	1,557	1,683	1,176	946	728	758	661	12,048	15	10	8	4	7	19	16	19	11	18	8	...	143
INDIA†	1 9	1,411	1,779	1,874	2,247	2,774	2,950	2,979	4,030	4,362	3,526	2,416	32,087	190	118	30	83	70	69	83	65	98	116	136	218	1,402

* Including Ajmer, Sibi, Quetta, Secunderabad and Mercara and excluding Andamans.
† Including Ajmer, Sibi, Quetta, Secunderabad, Mercara and Andamans.

PRISONERS, 1908.

TABLE LI.

DYSENTERY by months, Jails, Groups and Administrations.

TABLE LII.

DIARRHŒA by months, Jails, Groups and Administrations.

*JAILS AND GROUPS.	ADMISSIONS FROM DYSENTERY IN EACH MONTH.												ADMISSIONS FROM DIARRHŒA IN EACH MONTH.													
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Mergui . . .	3	1	...	...	...	2	1	3	1	3	1	...	15	...	...	...	1	...	...	...	...	2	...	...	...	3
Tavoy . . .	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	1
Moulmein . . .	...	...	1	...	1	6	1	1	...	1	4	2	17	2	1	1	...	1	...	...	1	1	...	...	...	8
Toungoo . . .	...	...	...	...	2	3	1	...	1	1	...	...	8	1	...	...	...	1	...	...	...	...	...	...	...	3
Rangoon, Central (Europeans) }	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	...	2
Rangoon, Central (Natives) }	...	...	3	1	3	10	6	3	2	4	1	...	33	3	5	3	6	9	6	7	3	6	8	6	8	70
Maubin . . .	...	...	...	...	...	...	...	...	1	...	3	...	4	...	...	...	...	...	...	...	...	...	3	1	...	4
Myaungmya . . .	1	1	1	...	...	...	...	...	...	...	...	...	3	...	1	...	...	...	...	...	...	...	1	...	...	3
Bassein, Central . . .	...	1	1	1	5	2	2	3	2	1	4	1	22	...	...	...	...	1	...	...	...	...	...	...	...	1
Myanaung . . .	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Sandoway . . .	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Kyaukpyu . . .	...	...	2	...	3	2	1	2	4	2	...	1	17	1	2	1	...	3	5	...	...	2	...	2	...	18
Akyab . . .	...	...	1	...	1	...	4	2	1	1	1	1	12	...	...	...	...	...	...	...	...	...	...	...	...	...
GROUP I.—BURMA COAST AND BAY ISLANDS . . .	4	3	10	1	15	25	17	15	12	13	14	5	134	7	9	5	9	14	12	8	4	12	11	12	10	113
Paungde . . .	...	...	...	...	...	3	...	...	1	2	1	...	7	...	...	...	...	...	...	...	...	...	...	...	...	...
Prome . . .	3	...	...	1	...	...	...	...	...	...	...	...	4	1	1	1	1	...	1	2	...	1	...	...	...	10
Thayetmyo, Central . . .	...	...	...	2	1	1	1	...	...	...	...	...	5	...	...	...	...	3	1	...	...	...	...	...	...	4
Yamethin . . .	2	...	1	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...
Meiktila . . .	...	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...
Pagan . . .	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Myingyan, Central . . .	9	7	8	1	4	10	11	7	12	5	18	4	96	1	...	6	6	...	3	...	...	1	...	4	1	1
Mandalay . . .	...	...	2	2	3	...	...	1	3	2	...	3	16	...	...	1	...	...	...	...	1	...	1	...	...	23
Monywa . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4
Bhamo . . .	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Katha . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...
Kindat . . .	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	3	1	...	...	5
GROUP II.—BURMA INLAND . . .	14	7	11	6	9	16	12	9	16	9	19	7	135	2	1	8	8	3	6	2	1	2	7	6	2	48
Cachar . . .	...	...	...	1	...	...	...	...	...	...	...	3	4	...	...	3	...	...	1	...	...	...	1	1	...	6
Sibsagar . . .	...	...	1	2	3	8	1	...	...	1	...	...	16	...	...	...	...	1	1	...	...	...	...	...	...	5
Dibrugarh . . .	...	1	...	...	...	1	...	...	...	...	...	...	2	...	...	...	2	1	4	...	1	...	2	...	...	11
Tezpur . . .	...	...	...	...	...	...	...	1	1	...	...	...	2	...	...	...	...	3	...	...	...	...	...	...	...	4
Nowgong . . .	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	1
Gauhati . . .	...	...	...	...	...	...	...	3	...	2	3	3	22	...	2	...	1	...	...	...	...	...	...	...	...	1
Dhubri . . .	3	...	1	4	1	1	1	...	2	1	1	...	15	1	1	1	...	4	4	12	13	11	6	1	1	55
Sylhet . . .	2	1	2	1	1	1	2	1	2	1	1	...	15	1	1	1	...	...	...	...	2	4	...	1	1	11
GROUP III.—ASSAM . . .	10	4	5	9	11	8	8	6	4	4	5	4	78	1	2	3	13	9	8	1	1	3	...	3	5	49
Mymensingh . . .	17	17	12	33	17	17	7	3	5	16	37	37	218	7	10	6	13	13	13	15	13	13	9	4	1	117
Dacca, Central . . .	18	3	11	34	31	13	15	35	39	32	44	23	218	5	5	15	8	...	3	12	18	13	16	14	7	116
Tipperra . . .	3	1	1	4	6	3	1	2	18	6	11	1	57	...	...	...	...	...	...	...	...	...	...	...	...	...
Chittagong . . .	2	2	1	2	8	5	6	4	4	2	1	1	38	...	1	...	...	...	...	...	...	...	...	...	...	...
Noakhali . . .	11	8	5	6	6	17	20	16	3	17	11	15	135	...	...	2	...	1	1	2	...	...	...	...	...	...
Bakarganj . . .	...	...	...	...	...	1	...	...	...	...	7	11	20	...	...	...	...	...	...	...	1	...	...	...	...	...
Khulna . . .	...	1	2	1	1	2	1	2	2	...	...	2	15	...	1	...	1	...	...	...	...	1	2	2	...	16
Jessore . . .	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5
Baraset . . .	31	18	16	10	18	15	18	27	35	19	25	22	254	1	2	5	...	1	4	2	9	1	1	...	1	27
Presidency, Central (Europeans) }	1	2	1	5	4	6	9	12	8	5	6	21	80	1	...	1	...	2	1	7	5	3	7	1	2	30
Presidency, Central (Natives) }	...	...	...	...	...	...	...	...	...	...	...	...	...	1												

PRISONERS, 1908.

TABLE LI—concluded.

DYSENTERY by months, Jails, Groups, and Administrations.

JAILS AND GROUPS.	ADMISSIONS FROM DYSENTERY IN EACH MONTH.												TOTAL.
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	
A													
Peshawar	1	1	5	2	3	6	1	2	5	8	6	7	47
Kohat . . . . .	...	...	...	1	1	...	...	...	1	...	1	1	5
Bannu . . . . .	...	...	...	1	...	...	...	...	2	1	1	...	13
Shahpur . . . . .	...	...	1	1	2	1	4	2	2	4	1	2	17
Mianwali . . . . .	...	...	...	2	...	...	...	...	...	...	...	...	2
Lyallpur . . . . .	...	...	...	1	...	...	...	...	...	...	...	...	1
Jhang . . . . .	...	...	...	1	...	...	...	...	1	1	2	3	8
Montgomery, Central	6	4	3	28	21	4	1	2	2	1	12	13	97
Mooltan, Central . . . . .	...	...	...	...	...	...	...	...	...	1	1	...	2
„ District . . . . .	...	...	...	...	1	...	...	2	4	3	4	6	20
Dera Ismail Khan	5	...	3	6	4	...	2	3	1	4	3	5	36
Dera Ghazi Khan	4	3	...	5	...	1	1	...	1	2	...	3	20
B													
Sibi . . . . .	...	1	...	...	...	...	...	...	...	...	...	1	2
C													
Sukkur . . . . .	...	...	1	3	1	...	...	...	...	...	1	1	7
Sind Gang	3	3	3	1	1	5	2	3	3	1	2	2	29
Hyderabad, Central	1	1	1	...	2	1	5	21	8	8	5	6	59
Karachi	1	3	1	1	...	1	8	3	...	8	2	3	31
GROUP VII.—													
N.-W. FRONTIER, INDUS VALLEY, AND N.-W. RAJPUTANA	21	16	18	53	35	21	25	40	30	42	41	53	396
A													
Rajkot . . . . .	...	...	...	...	...	...	...	1	...	...	...	1	2
Ahmedabad, Central . . . . .	...	...	...	...	...	...	...	6	5	...	...	...	11
B													
Ajmer	1	1	1	...	...	...	...	1	1	...	...	...	5
Muttra . . . . .	...	2	...	2	5	2	1	3	4	12	8	4	43
Agra, Central	1	...	1	3	...	...	...	4	5	3	6	1	24
„ District	1	1	4	1	...	...	1	3	1	2	2	...	16
Jhansi . . . . .	...	...	1	1	1	1	2	4	1	3	1	3	18
Lalitpur . . . . .	...	...	...	...	...	...	...	1	...	...	...	...	1
GROUP VIII.—													
S.-E. RAJPUTANA, CENTRAL INDIA AND GUJARAT	3	4	7	7	6	3	4	23	17	20	17	9	120
A													
Damoh . . . . .	...	...	...	1	...	1	...	3	...	...	...	1	6
Saugor	1	6	2	1	3	3	...	3	2	2	2	...	25
Jubbulpore, Central . . . . .	...	...	...	...	...	...	...	...	3	3	3	...	9
Narsinghpur	1	...	...	...	...	...	...	...	...	...	1	1	3
Mandla	1	...	...	...	...	...	6	3	6	1	...	...	17
Bilaspur	1	...	2	2	1	1	7	7	8	12	8	4	53
Sambalpur	2	2	2	...	3	2	7	7	1	8	5	4	43
Raipur, Central . . . . .	...	...	1	...	1	...	1	...	...	1	...	...	4
Balaghat . . . . .	...	...	...	...	...	...	2	4	...	...	...	1	7
Seoni . . . . .	...	...	...	...	...	...	...	1	...	...	...	...	1
Chhindwara . . . . .	...	...	...	...	...	...	...	1	2	1	2	...	6
Hoshangabad . . . . .	...	...	1	...	...	...	1	...	...	...	...	1	3
Nimar . . . . .	...	...	...	...	...	...	...	1	...	...	...	...	1
Betul	2	...	3	1	...	...	9	10	5	3	3	...	36
Nagpur, Central . . . . .	...	...	...	...	...	...	...	1	...	...	...	...	1
Bhandara . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Wardha . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Chanda . . . . .	...	...	...	...	...	...	...	1	...	...	...	...	1
B													
Secunderabad . . . . .	...	...	...	...	1	...	3	...	4	2	1	...	11
Yeotmal . . . . .	...	...	...	...	...	...	...	2	...	...	...	...	2
Amraoti	1	...	1	...	...	...	...	1	...	...	1	2	6
Akola . . . . .	...	...	...	...	...	...	3	3	...	1	...	...	7
Buldana . . . . .	...	...	...	2	...	...	...	...	...	...	...	...	2
Dhulia . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...
Yerrowda, Central	4	...	1	2	1	5	23	18	11	7	2	3	77
Bijapur	2	...	...	1	...	2	8	3	3	1	1	...	21
Deccan Gang	1	1	2	4	3	1	1	2	...	...	2	...	17
Dharwar . . . . .	...	1	...	...	2	7	4	3	4	3	...	...	24
GROUP IX.—													
DECCAN	16	10	15	14	15	22	75	73	51	45	31	17	384
A													
Thana . . . . .	...	...	...	...	2	...	17	7	2	1	1	...	30
Bombay, Common House of Correction . . . . .	...	1	1	2	...	...	1	1	...	...	1	...	7
Ratnagiri . . . . .	...	...	...	1	...	...	...	5	1	...	1	1	9
Karwar . . . . .	...	1	4	...	...	5	4	9	5	10	2	2	42
Mangalore . . . . .	...	...	...	...	...	...	11	2	3	...	...	...	16
Cananore, Central	7	3	1	2	7	3	6	15	9	24	7	2	86
GROUP X.—WESTERN COAST	7	5	6	5	9	8	40	39	20	35	13	5	192

TABLE LII—concluded.

DIARRHŒA by months, Jails, Groups, and Administrations.

ADMISSIONS FROM DIARRHŒA IN EACH MONTH.													
January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	
...	
1	1	1	...	...	...	...	...	...	...	...	...	2
...	...	3	3	1	...	...	1	...	...	...	...	9
...	1	...	1	1	2	2	1	3	8	1	2	22	
...	...	1	...	...	...	...	1	1	...	...	...	3
...	...	...	3	...	1	...	...	...	...	...	...	4
...	...	...	1	...	...	1	...	...	...	...	1	3
5	13	6	36	29	3	3	5	4	...	9	5	118	
2	...	...	...	...	1	...	...	...	...	2	5	10
...	...	1	...	1	...	...	...	...	2	2	7	13
1	...	...	1	4	3	1	...	1	...	...	...	11
...	1	4	1	2	...	1	...	...	1	1	...	11
...	
...	...	...	...	1	...	...	...	1	...	...	...	2
...	2	...	2	4	8	2	3	1	2	...	1	25	
2	...	...	...	1	1	2	4	2	...	1	3	16
1	2	...	...	...	4	1	...	1	1	...	...	11
12	20	16	48	44	23	13	15	14	14	17	24	260	
...	...	...	1	...	...	2	1	1	1	2	...	8
1	...	1	1	...	1	3	6	1	2	...	1	17	
...	...	...	1	...	...	2	2	...	...	...	...	5
2	2	7	2	1	1	8	...	...	...	1	...	24
2	2	...	1	1	...	3	5	8	9	1	1	33	
...	...	1	2	1	...	1	2	1	1	2	3	14	
4	3	2	2	1	2	3	6	3	...	4	5	35	
...	...	...	...	...	...	...	...	1	...	...	...	1
9	7	11	10	4	4	22	22	15	13	10	10	137	
...	...	...	...	...	...	...	...	2	...	2	2	6
2	3	2	4	2	...	...	1	...	...	1	2	17
...	...	...	...	...	...	...	...	1	...	1	1	3
...	...	...	...	...	...	...	...	1	...	...	...	1
...	
...	...	...	...	...	...	...	...	...	...	1	...	1
1	...	2	...	3	4	5	...	...	...	...	1	16
2	...	5	...	3	4	3	2	4	1	2	...	26	
...	...	...	...	...	...	...	2	...	...	...	...	2
...	
...	...	...	...	...	...	...	...	...	1	...	...	1
1	1	...	1	...	...	1	4	3	1	...	1	13
3	...	1	...	...	...	...	5	1	1	2	1	14
...	...	...	...	...	...	...	...	...	...	...	...	1
...	...	3	2	...	...	2	...	1	...	1	1	10
...	
1	...	...	1	...	...	...	...	...	...	...	...	2
...	1	...	...	...	...	...	...	...	1	...	...	2
...	
...	...	...	...	...	2	...	5	...	1	...	...	9
1	...	...	...	...	...	...	...	...	...	...	...	1
...	...	...	2	1	1	...	...	...	...	...	...	4
...	...	...	...	...	...	...	...	...	1	...	...	1
...	2	2	...	...	...	...	...	...	...	...	...	4
10	1	7	9	8	16	51	32	25	11	6	3	179	
...	...	...	...	...	...	2	...	...	1	...	...	3
1	3	...	1	2	1	1	1	2	10	7	5	34	
...	...	...	1	2	...	3	2	...	6	5	4	23
22	11	22	21	22	28	69	54	40	35	28	21	373	
2	...	1	2	1	1	13	9	4	3	1	1	38	
...	...	...	...	...	...	1	1	2	3	1	3	11
...	...	...	...	...	...	1	...	...	...	...	...	1
...	...	...	...	...	...	1	...	3	...	1	...	6
...	...	...	...	...	...	...	...	1	...	...	...	17
1	2	...	...	5	1	...	1	1	5	...	1	17
3	2	1	2	7	2	16	11	10	11	3	5	73	

JAILS, GROUPS, AND ADMINIS- TRATIONS.	ADMISSIONS FROM DYSENTERY IN EACH MONTH.												ADMISSIONS FROM DIARRHŒA IN EACH MONTH.													
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
A																										
Bellary, Central	3	4	6	1	3	3	1	3	8	6	2	..	40	1	..	1	3	..	1	..	..	..	..	..	..	6
Salem „	7	2	..	..	..	..	5	14	6	4	8	5	51	..	..	..	..	..	..	..	..	..	..	..	..	..
Coimbatore „	..	1	4	5	1	6	5	..	2	3	1	1	29	..	..	..	..	..	..	..	..	..	..	..	..	..
B																										
Palamcottah	4	..	..	..	1	1	..	1	1	1	3	4	16	..	..	..	..	..	..	..	..	..	..	..	..	..
Madura	1	1	..	..	1	7	1	..	..	1	..	..	12	..	..	..	..	..	..	..	..	..	..	..	..	..
Trichinopoly, Central	1	5	2	1	4	2	4	6	13	22	17	6	83	..	..	..	..	..	..	..	..	..	..	..	..	..
Tanjore	..	..	..	..	..	..	..	..	1	2	..	..	3	1	..	..	..	1	..	..	..	..	..	..	..	2
Cuddalore	12	7	5	2	3	1	1	2	3	..	2	1	39	..	..	1	1	..	..	..	..	..	..	..	..	2
Vellore, Central	4	2	..	1	2	1	..	4	..	1	3	1	19	5	1	4	1	1	1	3	2	1	3	..	..	22
Madras Peniten- tiary, Central }	1	..	..	..	..	1	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..
C																										
Rajahmundry, Central }	3	1	1	2	4	3	20	70	19	6	10	19	158	..	..	..	..	..	..	..	..	..	..	..	..	..
Vizagapatam	5	4	3	7	13	21	16	13	1	1	5	5	94	..	..	..	..	..	..	14	6	1	..	1	3	25
Berhampur	..	1	..	1	..	1	3	3	..	3	3	5	20	..	..	..	..	..	..	..	..	..	..	..	..	..
GROUP XI.— SOUTHERN INDIA }	41	28	21	20	32	47	56	116	54	50	54	47	565	7	1	6	5	2	2	17	8	2	3	1	3	57
GROUP XII.— HILLS }																										
Aijal	..	..	..	2	1	..	..	1	..	..	..	..	4	..	..	..	1	3	1	..	..	..	..	..	1	6
Kohima	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Shillong	..	..	..	..	..	3	1	1	3	2	..	1	11	1	..	..	..	..	1	..	1	..	..	..	..	3
Darjeeling	..	..	..	..	..	3	2	..	..	..	1	1	7	..	..	..	..	..	1	1	4	..	..	..	..	6
Almora	..	..	..	1	..	..	3	3	3	1	..	..	11	..	..	..	..	..	..	1	3	1	..	..	..	5
Pauri	..	..	..	..	..	..	..	..	1	..	2	..	3	..	..	..	..	..	1	..	..	..	..	..	..	1
Naini Tal	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	1	5	3	1	..	13
Abbotabad	..	..	..	..	..	..	1	..	1	..	..	..	2	..	..	..	..	..	..	2	..	..	..	..	..	2
Quetta	1	..	..	..	..	..	..	..	1	..	1	1	4	..	..	..	..	1	..	2	..	1	..	..	..	4
Mercara	1	..	2	..	..	..	..	..	..	1	..	..	4	..	..	..	..	1	..	..	..	..	..	..	..	1
Russellkonda	..	..	..	..	..	..	11	3	..	..	..	..	14	..	..	..	..	..	..	..	..	..	..	..	..	..
GROUP XII.— HILLS }	2	..	2	3	1	6	18	8	10	4	4	3	61	2	..	..	1	5	6	2	13	6	4	1	1	41
EXTRA INDIA.— ADEN }	2	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	..	1	..	..	..	..	..	1
INDIA*	350	260	422	539	543	559	837	1023	953	824	810	676	7,796	177	167	297	359	336	354	464	472	355	336	254	235	3,806
BURMA	18	10	21	7	24	41	29	24	28	22	33	12	269	9	10	13	17	17	18	10	5	14	18	18	12	161
EASTERN BENGAL AND ASSAM }	90	54	74	136	120	125	106	128	159	151	158	132	1,433	32	30	45	64	40	47	58	57	47	38	35	23	516
BENGAL	94	87	190	213	210	231	423	377	316	235	226	226	2,828	56	59	137	145	137	179	219	177	110	118	78	76	1,491
UNITED PROV NCES }	53	42	69	84	72	49	69	181	162	172	210	155	1,318	29	31	47	49	51	49	49	93	76	74	52	55	655
PUNJAB	16	14	11	47	50	22	12	47	143	95	71	58	586	14	18	23	47	51	15	18	45	48	32	35	36	382
N.-W. F. PROVINCE }	6	1	8	10	8	8	8	7	10	13	11	13	103	2	1	4	4	5	3	1	3	1	..	..	..	24
CENTRAL PROVINCES }	8	8	10	5	7	6	29	40	21	20	17	10	181	10	5	11	10	7	7	7	19	13	7	10	8	114
BOMBAY	14	11	14	15	12	27	74	82	42	39	21	19	370	17	10	11	17	20	32	83	60	43	40	25	21	379
MADRAS	48	31	22	22	39	50	84	136	66	74	61	49	682	8	3	6	5	7	3	17	9	3	8	1	4	74
ANDAMANS	141	157	114	124	211	180	163	103	83	76	111	96	1,559	33	32	48	61	71	57	45	26	31	34	38	24	500
INDIA†	491	417	536	663	754	739	1,000	1,126	1,036	900	921	772	9,355	210	199	345	420	407	411	509	498	386	370	292	259	4,306

* Including Ajmer, Sibi, Quetta, Secunderabad and Mercara and excluding Andamans.
† Including Ajmer, Sibi, Quetta, Secunderabad, Mercara and Andamans.

TABLE LIH.

DETAIL of DISEASES.

DISEASES.	EUROPEAN ARMY OF INDIA.*								NATIVE ARMY OF INDIA.†			JAIL POPULATION OF INDIA, 115,403.	
	MEN, 68,522.				WOMEN, 3,696.		CHILDREN, 5,819.		Present	126,975	Enrolled	150,778	
	Admis- sions.	Constantly sick.	Deaths.	Invalids.	Admis- sions.	Deaths.	Admis- sions.	Deaths.	Admis- sions.	Deaths.	Invalids.	Admis- sions.	Deaths.
GENERAL DISEASES.													
Infective Diseases :—													
Anthrax . . . . .	...	...	...	...	...	...	...	...	4	...	...	1	...
Blackwater fever . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Beri-beri	35	4'93	...	5	...	...	...	...	13	...	...	17	10
Cerebrospinal fever . . . . .	...	...	...	...	...	...	...	...	2	1	...	24	18
Chicken-pox	17	1'28	...	...	...	...	20	...	205	...	...	647	...
Cholera	43	1'46	35	1	4	3	5	3	174	116	...	337	170
Cow-pox	4	'06	...	...	1	...	7	...	48	...	...	6	...
Dengue	165	4'17	...	...	7	...	1	...	15	...	...	...	...
Diphtheria	1	'04	...	...	...	...	11	4	...	...	...	...	...
Dysentery	986	77'35	29	31	37	...	47	15	5,019	28	7	9,355	534
Endocarditis, infective . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Enteric fever	998	184'71	188	21	49	7	21	2	350	73	1	116	36
Enteritis, infective	13	'39	4	...	...	...	9	5	12	1	...	143	14
Epidemic Dropsy . . . . .	...	...	...	...	...	...	...	...	...	...	...	10	1
Erysipelas	15	1'18	...	...	3	...	...	...	23	...	...	95	18
Gangrene, acute infective . . . . .	...	'13	...	...	...	...	...	...	2	1	...	1	...
German measles	5	'22	...	...	...	...	1	...	34	...	...	...	...
Gonorrhœa	2,597	328'68	...	15	...	...	2	...	768	...	10	455	1
Influenza	432	14'58	...	...	10	...	4	...	482	3	...	430	4
Kala-Azar	4	'64	1	2	...	...	...	...	9	4	2	1	1
Leprosy . . . . .	...	...	...	...	...	...	...	...	7	...	6	97	14
Madura disease . . . . .	...	...	...	...	...	...	...	...	1	...	...	1	...
Malaria	16,763	572'17	35	62	319	6	361	13	33,797	74	44	32,087	136
Measles	45	2'26	1	...	4	...	190	4	317	1	...	101	...
Malta fever	3	1'19	...	2	...	...	...	...	23	...	...	...	...
Mumps	10	1'03	...	...	2	...	11	...	914	...	...	635	...
Osteo-myelitis and Periostitis, acute infective . . . . .	...	...	...	...	...	...	...	...	2	...	...	1	...
Phagedæna . . . . .	...	...	...	...	...	...	...	...	...	...	...	2	...
Plague	2	'07	1	...	...	...	...	...	36	14	...	10	5
Pneumonia	266	24'58	27	1	8	3	17	5	1,623	279	10	1,402	386
Pyæmia	3	'81	2	2	...	...	...	...	5	2	...	10	6
Pyrexia of uncertain origin	5,077	166'59	...	1	68	...	128	1	2,056	11	...	1,086	2
Rabies	2	'01	2	...	...	...	...	...	2	...	...	...	...
Relapsing fever	1	'02	...	...	...	...	...	...	2	1	...	3	...
Rheumatic fever	498	38'06	...	26	9	...	3	...	784	1	38	972	4
Scarlet fever	11	1'97	...	...	2	1	2	...	...	...	...	...	...
Septicæmia	2	'03	2	...	1	1	...	...	2	1	...	8	7
„ puerperal . . . . .	...	...	...	...	2	1	...	...	...	...	...	6	4
Small-pox	53	5'71	2	...	36	7	8	1	103	3	...	123	15
Syphilis	1,085	162'66	3	59	3	...	...	...	625	2	42	1,499	21
„ inherited . . . . .	...	...	...	...	...	...	2	1	...	...	...	...	...
Tetanus . . . . .	...	...	...	...	...	...	...	...	5	5	...	12	6
Tubercle of the bones	1	'09	...	1	...	...	...	...	1	...	...	1	...
Tubercle of brain and its mem- branes . . . . .	...	...	...	...	...	...	3	3	...	...	...	2	3
„ general	3	'20	1	1	...	...	1	1	...	...	...	...	...
„ of intestines	1	'02	1	...	...	...	...	...	...	...	...	24	14
„ „ joints	9	1'42	...	7	...	...	...	...	1	...	...	3	...

* Details of the European Army of India : exclude troops on Field Service.

† Details of the Native Army of India : include troops out of India and on Field Service.

DISEASES.	EUROPEAN ARMY OF INDIA.								NATIVE ARMY OF INDIA.			JAIL POPULATION OF INDIA.	
	MEN.				WOMEN.		CHILDREN.		Admis- sions.	Deaths.	Invalids.	Admis- sions.	Deaths.
	Admis- sions.	Constantly sick.	Deaths.	Invalids.	Admis- sions.	Deaths.	Admis- sions.	Deaths.					
INFECTIVE DISEASES—contd.													
Tubercle of kidney	1	'36	1	...	...	...	1	...	...	...	...	...	...
„ „ lungs	93	23 '40	16	73	10	2	3	2	378	53	191	1,070	461
„ „ „ and intestines . . . . .	...	...	...	...	...	...	...	...	...	...	...	20	17
„ „ lungs and kidneys . . . . .	...	...	...	...	...	...	...	...	...	...	...	2	1
„ „ „ lymphatic glands . . . . .	...	...	...	...	...	...	...	...	...	...	...	5	1
„ „ lungs and spleen . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	1
„ „ lymphatic glands	3	'49	...	1	...	...	1	...	14	...	1	62	9
Tubercle of lymphatic glands and intesines . . . . .	...	...	...	...	...	...	3	2	...	...	...	...	...
„ „ „ and testicles	1	'66	1	...	...	...	...	...	...	...	...	...	...
„ „ pancreas . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	1
„ „ peritoneum	2	'13	1	...	...	...	...	...	3	2	1	2	4
„ „ pharynx, larynx and abdominal viscera . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	1
„ „ pleura . . . . .	...	...	...	...	...	...	...	...	2	1	1	4	3
„ „ skin	2	'30	...	1	...	...	...	...	...	...	...	3	...
„ „ spine	1	'15	...	1	...	...	...	...	1	...	1	...	...
„ „ testicle	5	1'14	...	2	...	...	...	...	1	...	...	3	1
„ (not defined) . . . . .	...	...	...	...	...	...	...	...	13	...	6	...	...
Typhus fever . . . . .	...	...	...	...	...	...	...	...	4	2	...	6	1
Whooping-cough . . . . .	...	...	...	...	...	...	36	3	1	...	...	...	...
Yaws . . . . .	...	...	...	...	...	...	...	...	...	...	...	2	...
INTOXICATIONS :—													
Alcoholism	70	2'61	3	1	...	1	...	...	3	...	...	...	...
Delirium tremens	1	...	...	...	...	...	...	...	...	...	...	...	...
Lathyrism . . . . .	...	...	...	...	...	...	...	...	...	...	...	3	...
Morphinism . . . . .	...	...	...	...	...	...	...	...	...	...	...	19	...
General Diseases not classified as above :—													
Anæmia	105	6'39	...	5	54	...	10	2	944	13	17	612	29
„ chronic splenic . . . . .	...	...	...	...	...	...	...	...	2	...	1	...	...
„ pernicious	2	'08	2	...	1	...	...	...	2	...	...	5	5
Chlorosis . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	1
Debility	1,246	66'36	...	70	1,049	1	278	11	594	3	52	567	17
Diabetes mellitus	5	'53	1	1	...	...	...	...	11	1	2	25	5
Exophthalmic goitre	1	'13	...	1	8	...	...	...	1	...	...	1	...
Gout	9	'41	...	...	1	...	...	...	5	...	...	2	...
Hæmophilia . . . . .	...	...	...	...	...	...	...	...	1	1	...	1	...
Leucocythæmia	2	'21	...	...	...	...	1	1	1	1	...	1	1
Lymphadenoma . . . . .	...	...	...	...	...	...	...	...	3	...	...	1	...
Obesity . . . . .	...	...	...	...	...	...	...	...	1	...	1	...	...
Old age . . . . .	...	...	...	...	...	...	...	...	...	...	...	20	10

TABLE LIII—continued.

DETAIL of DISEASES.

DISEASES.	EUROPEAN ARMY OF INDIA.								NATIVE ARMY OF INDIA.			JAIL POPULATION OF INDIA.	
	MEN.				WOMEN.		CHILDREN.		Admis- sions.	Deaths.	Invalids.	Admis- sions.	Deaths.
	Admis- sions.	Constantly sick.	Deaths.	Invalids.	Admis- sions.	Deaths.	Admis- sions.	Deaths.					
General diseases not classi- fied as above— <i>contd.</i>													
Osteo-arthritis	4	'28	...	I	...	...	...	...	28	...	2	...	...
Purpura	2	'09	...	...	...	...	...	...	4	...	...	3	I
Rickets . . . . .	...	...	...	...	...	...	4	...	...	...	...	...	...
Scurvy	5	'56	...	...	...	...	...	...	191	...	4	100	3
Morbid conditions incident to various parts :													
Congenital malformation ear imperfect with occulsion of meatus .													
" foramen ovale persistent .	...	...	...	...	...	...	I	...	...	...	...	...	...
" harelip . . . . .	...	...	...	...	...	...	...	I	I	...	...	3	...
" " " not de- fined . . . . .	...	...	...	...	...	...	...	...	I	...	...	...	...
" persistent urachus .	...	...	...	...	...	...	...	...	I	...	...	...	...
" phimosis	40	2'14	...	...	...	...	16	...	3	...	...	...	...
" septa incomplete . .	...	...	...	...	...	...	I	I	...	...	...	...	...
" spina bifida . . . .	...	...	...	...	...	...	I	I	...	...	...	...	...
" supernumerary digits .	...	...	...	...	...	...	I	...	...	...	...	...	...
" talipes equinus . . .	...	...	...	I	...	...	...	...	...	...	...	...	...
" testicle absent . . .	...	...	...	...	...	...	...	...	I	...	I	...	...
" " diminutive	I	'11	...	...	...	...	...	...	...	...	...	...	...
" " undescended . . .	I	'17	...	...	...	...	...	...	I	...	...	...	...
" tongue tied . . . . .	...	...	...	...	...	...	I	...	...	...	...	...	...
" ureter absent . . . .	...	...	...	...	...	...	...	...	I	...	...	...	...
Cysts	31	1'54	...	I	I	...	...	...	42	...	...	18	...
New Growth Malignant (n. d.).	...	...	...	...	...	...	...	...	2	...	...	9	4
" " Carcinoma	I	'20	I	...	...	...	...	...	I	I	...	16	14
" " Encephaloid car- cinoma . . . . .	...	...	...	...	...	...	...	...	I	I	...	...	...
" " Epithelioma . . . .	...	...	...	...	...	...	...	...	I	...	...	5	...
" " Lympho-sarcoma . .	...	...	...	...	...	...	...	...	I	I	...	...	...
" " Sarcoma . . . . .	...	...	...	...	...	...	...	...	5	...	...	6	4
New Growth non malignant (n. d.) .	2	'10	...	...	...	...	...	...	14	...	...	39	...
" " Adenoma . . . . .	...	...	...	...	I	...	...	...	...	...	...	...	...
" " Fibroma	18	1'38	...	...	3	...	...	...	14	...	...	8	...
" " Chondroma . . . . .	...	...	...	...	...	...	...	...	...	...	...	I	...
" " Glioma	2	'28	...	I	...	...	...	...	...	...	...	...	...
" " Hæmangioma	1	'06	...	...	...	...	...	...	...	...	...	I	...
" " Lipoma	7	'47	...	...	...	...	...	...	12	...	...	15	...
" " Myoma . . . . .	...	...	...	...	...	...	...	...	...	...	...	I	...
" " Myxoma	2	'32	...	I	...	...	...	...	...	...	...	3	...
" " Neuroma . . . . .	...	...	...	...	...	...	...	...	I	...	I	...	...
" " Odontoma . . . . .	...	...	...	...	...	...	...	...	I	...	...	...	...
" " Osteoma	6	'27	...	I	...	...	...	...	I	...	I	...	...
" " Papilloma	11	'47	...	I	...	...	...	...	I	...	...	I	...
" " Polypus . . . . .	...	...	...	...	...	...	...	...	...	...	...	5	...
" " Pterygium . . . . .	...	...	...	...	...	...	...	...	25	...	...	9	...
" " Sarcoma	3	'26	2	I	...	...	...	...	...	...	...	...	...

DISEASES.	EUROPEAN ARMY OF INDIA.								NATIVE ARMY OF INDIA.			JAIL POPULATION OF INDIA.	
	MEN.				WOMEN.		CHILDREN.		Admis- sions.	Deaths.	Invalids.	Admis- sions.	Deaths.
	Admis- sions.	Constantly sick.	Deaths.	Invalids.	Admis- sions.	Deaths.	Admis- sions.	Deaths.					
Morbid conditions incident to various parts— <i>contd.</i>													
New Growth non malignant, Warts.	139	7'98	...	...	...	...	...	...	...	...	...	...	...
Parasites :— <i>Acanthia lectularia</i> .	...	...	...	...	...	...	...	...	1	...	...	...	...
„ <i>Ascaris lumbricoides</i> Linnæus . . .	7	'47	...	...	...	...	1	...	43	...	...	122	1
„ <i>Bilharzia hæmatobia</i> .	4	'52	...	2	...	...	...	...	...	...	...	1	...
„ <i>Bothriocephalus latus</i> .	...	...	...	...	...	...	...	...	...	...	...	3	...
„ <i>Culex pipiens</i> . . .	1	'02	...	...	...	...	...	...	...	...	...	...	...
„ <i>Echinococcus hominis</i> .	3	'26	...	...	...	...	...	...	...	...	...	2	...
„ <i>Erythrasma</i> . . .	5	'08	...	...	...	...	...	...	3	...	...	...	...
„ <i>Favus</i> . . .	1	'10	...	...	...	...	...	...	4	...	...	16	...
„ <i>Filaria sanguinis hominis</i> . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
„ Guinea-worm . . .	...	...	...	...	...	...	...	...	522	...	2	411	1
„ <i>Musca vomitoria</i> . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
„ <i>Pediculus capitis</i> . . .	1	'02	...	...	...	...	2	...	...	...	...	...	...
„ <i>Pentastomum denticulatum</i> Rudolphi . .	2	'93	...	...	...	...	...	...	...	...	...	...	...
„ <i>Phthirus inguinalis</i> .	30	'46	...	...	...	...	...	...	...	...	...	...	...
„ Ringworm . . .	356	14'34	...	...	2	...	...	...	416	...	...	155	...
„ Scabies . . .	296	15'27	...	...	1	...	...	...	1,364	...	3	736	...
„ Screw worm . . .	...	...	...	...	...	...	...	...	3	...	1	...	...
„ <i>Staphylococcus pyogenes albus</i> . . .	4	'30	...	...	...	...	...	...	...	...	...	...	...
„ <i>Strongylus duodenalis</i> .	...	...	...	...	...	...	...	...	6	...	...	70	5
„ <i>Tænia saginata</i> Goeze .	12	'19	...	...	2	...	1	...	3	...	...	2	...
„ „ <i>solium</i> Linnæus .	145	3'72	...	...	8	...	11	...	20	...	...	59	...
„ Thread-worm . . .	...	...	...	...	1	...	...	...	4	...	...	105	...
„ <i>Tinea versicolor</i> . . .	2	'03	...	...	...	...	2	...	...	...	...	...	...
„ <i>Trichocephalus dispar</i> .	...	...	...	...	...	...	...	...	...	...	...	1	...
General Diseases not specified .	...	...	...	...	...	...	...	...	8	...	...	...	...
LOCAL DISEASES.													
NERVOUS SYSTEM —													
Abscess of the brain . . .	5	'29	4	...	...	...	...	...	...	...	...	9	10
Acute ascending paralysis . .	1	'02	1	...	...	...	...	...	...	...	...	...	...
Acute delirium . . .	1	'02	...	...	...	...	...	...	1	...	1	...	...
Anæmia of the brain . . .	1	'05	...	...	...	...	...	...	...	...	...	...	...
Anæsthesia . . .	...	...	...	...	...	...	...	...	2	...	1	...	...
Anterior poliomyelitis . . .	2	'22	...	...	...	...	2	...	1	...	1	1	...
Aphasia . . .	1	'03	...	...	...	...	...	...	1	...	1	1	...
Apoplexy . . .	...	...	...	...	...	...	...	...	1	...	1	9	8
Associated nuclear paralysis . .	1	'22	...	1	...	...	...	...	...	...	...	...	...
Bulbar paralysis . . .	...	...	...	...	...	...	...	...	...	...	...	2	...
Chorea . . .	7	'75	...	1	...	...	4	...	...	...	...	3	1
Cramp . . .	1	'02	...	...	...	...	...	...	1	...	...	...	...
Convulsions . . .	2	'14	...	...	...	...	21	21	1	...	...	...	...
„ puerperal . . .	...	...	...	...	3	2	...	...	...	...	...	...	...
Degeneration of the nerves . .	...	...	...	...	...	...	...	...	...	...	...	1	...

TABLE LIII—continued.

DETAIL of DISEASES.

DISEASES.	EUROPEAN ARMY OF INDIA.								NATIVE ARMY OF INDIA.			JAIL POPULATION OF INDIA.	
	MEN.				WOMEN.		CHILDREN.		Admis- sions.	Deaths.	Invalids.	Admis- sions.	Deaths.
	Admis- sions.	Constantly sick.	Deaths.	Invalids.	Admis- sions.	Deaths.	Admis- sions.	Deaths.					
NERVOUS SYSTEM—contd.													
Delirium . . . . .	...	...	...	...	...	...	...	...	2	...	...	...	...
Delusional insanity	13	2'86	...	16	...	...	...	...	8	...	4	...	...
Dementia	5	1'19	...	4	...	...	...	...	2	...	2	9	1
Encephalitis	1	'05	...	...	...	...	...	...	...	...	...	...	...
Epilepsy	51	5'29	1	36	3	...	2	...	27	1	7	135	11
Facial spasm . . . . .	...	...	...	...	...	...	...	...	2	...	...	...	...
General paralysis of the insane .	...	...	...	...	...	...	...	...	...	...	...	1	1
Hæmorrhage into the membranes of the brain . . . . .	...	...	...	...	...	...	...	...	1	1	...	3	1
Headache	125	3'64	...	2	7	...	...	...	59	...	...	24	...
Hemiplegia	8	1'05	...	4	...	...	1	1	20	3	4	22	2
Hiccough . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Hydrocephalus . . . . .	...	...	...	...	...	...	2	2	...	...	...	...	...
Hyperæmia of the brain . . . .	...	...	...	...	...	...	...	...	...	...	...	1	1
Hyperæsthesia . . . . .	...	...	...	...	...	...	...	...	2	...	...	...	...
Hysteria	10	'90	...	1	4	...	1	...	8	...	...	4	...
Idiocy . . . . .	...	...	...	...	...	...	...	...	2	...	...	...	...
Impulsive insanity	1	'26	...	1	...	...	...	...	1	...	1	...	...
Laryngismus stridulus . . . .	...	...	...	...	...	...	1	1	...	...	...	...	...
Leptomeningitis (cerebral) . . .	1	'04	1	...	...	...	1	1	1	1	...	2	2
Local paralysis	1	'10	...	1	...	...	...	...	41	...	4	8	...
Mania	15	3'69	1	10	2	1	...	...	14	1	8	44	1
Melancholia	21	6'07	...	19	...	...	...	...	14	...	1	16	2
Meningitis, cerebral	3	'31	1	...	...	...	6	4	5	7	...	13	13
„ „ suppurative	1	'02	1	...	...	...	...	...	...	...	...	...	...
„ „ spinal . . . . .	...	...	...	...	...	...	...	...	4	1	...	...	...
Mental Stupor	3	1'14	...	3	...	...	...	...	...	...	...	2	...
Monoplegia	1	'05	...	...	...	...	...	...	1	...	...	1	...
Multiple neuritis	28	4'29	...	6	6	...	...	...	19	...	3	1	1
Myelitis	3	'67	...	3	...	...	...	...	3	2	...	4	...
Nervous disease, not specified .	...	...	...	...	...	...	...	...	1	...	...	...	...
Neuralgia	156	6'37	...	6	20	...	1	...	328	...	7	128	...
Neurasthenia	32	2'50	...	11	8	...	...	...	12	...	3	...	...
Neuritis	25	2'14	...	2	1	...	...	...	57	...	6	10	...
Obsessive insanity	1	'42	...	1	...	...	...	...	1	...	1	...	...
Pachymeningitis (cerebral) . . .	2	'21	2	1	...	...	3	3	1	1	...	1	1
„ (spinal) . . . . .	...	...	...	...	...	...	...	...	1	...	...	3	1
Paralysis	1	'03	...	...	...	...	...	...	2	...	...	21	1
Paralysis agitans . . . . .	...	...	...	...	...	...	...	...	2	...	2	3	...
Paramyoclonus multiplex	2	'03	...	...	...	...	...	...	...	...	...	...	...
Paraplegia	3	'11	...	...	...	...	...	...	5	...	1	27	2
Periodic paralysis . . . . .	...	...	...	...	...	...	...	...	2	...	...	...	...
Posterior sclerosis	4	'55	...	2	...	...	...	...	5	...	3	6	...
Postero-lateral sclerosis . . . .	...	'14	...	1	...	...	...	...	1	...	1	1	...
Primary „ „	1	'24	...	1	...	...	...	...	...	...	...	11	...
Progressive muscular atrophy . .	...	...	...	...	...	...	...	...	4	...	...	1	...
Sanguineous apoplexy	6	'0	6	...	...	...	...	...	6	2	2	11	12
Sclerosis of the brain . . . . .	...	...	...	...	...	...	...	...	2	...	...	...	...
Sick headache	4	'09	...	...	...	...	...	...	30	...	...	19	...
Softening of the brain . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	1

DISEASES.	EUROPEAN ARMY OF INDIA.								NATIVE ARMY OF INDIA.			JAIL POPULATION OF INDIA.	
	MEN.				WOMEN.		CHILDREN.						
	Admis- sions.	Constantly sick.	Deaths.	Invalids.	Admis- sions.	Deaths.	Admis- sions.	Deaths.	Admis- sions.	Deaths.	Invalids.	Admis- sions.	Deaths.
NERVOUS SYSTEM— <i>contd.</i>													
Stammering . . . . .	...	...	...	1	...	...	...	...	...	...	...	...	...
Syringo-myelia . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Trance . . . . .	...	...	...	...	...	...	...	...	...	...	...	3	...
Tremor . . . . .	...	...	...	...	...	...	...	...	3	...	1	...	...
Vertigo	12	'32	...	...	1	...	...	...	15	...	...	4	...
Writer's cramp . . . . .	...	...	...	...	...	...	...	...	1	...	1	...	...
Wry neck	3	'21	...	...	...	...	...	...	6	...	...	4	...
EYE DISEASES—													
Abscess of the eyelids	2	'05	...	...	...	...	...	...	...	...	...	...	...
Abscess of the lacrymal gland	2	'10	...	...	...	...	...	...	1	...	...	...	...
„ „ sac . . . . .	...	...	...	...	...	...	...	...	1	...	...	9	...
Acquired deformities of the cornea . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Amblyopia and amaurosis	2	'14	...	1	...	...	...	...	13	...	6	...	...
Ametropia	6	'16	...	1	...	...	...	...	2	...	1	...	...
Astigmatism	42	2'35	...	11	1	...	1	...	3	...	1	...	...
Atrophy and degeneration of choroid	2	'07	...	1	...	...	...	...	...	...	...	...	...
Atrophy and degeneration of optic- nerve	4	'33	...	4	...	...	...	...	1	...	...	...	...
Blepharitis marginalis	20	'87	...	2	...	...	...	...	4	...	...	36	...
Blinding from intense light	1	'03	...	...	...	...	...	...	1	...	...	...	...
Capsular cataract . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Chemosis of conjunctiva . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Choroiditis	7	'42	...	2	...	...	...	...	1	...	...	3	...
Chronic dacryo-cystitis	3	'21	...	...	...	...	...	...	6	...	...	...	...
Chronic hyperæmia of the conjunc- tiva . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Congestion of optic disc	1	'02	...	...	...	...	...	...	...	...	...	...	...
Conjunctivitis	297	12'71	...	2	54	...	204	...	2,131	...	2	1,082	...
„ granular . . . . .	...	...	...	...	...	...	...	...	110	...	5	59	...
Degeneration and atrophy of retina	1	'12	...	1	...	...	...	...	1	...	...	...	...
Degeneration of the conjunctiva . . . . .	...	...	...	...	...	...	...	...	1	...	...	1	...
Diplopia . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Ecchymosis of the conjunctiva	1	'02	...	...	...	...	...	...	5	...	...	1	...
„ „ eyelids . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Entropion . . . . .	...	...	...	...	...	...	...	...	...	...	...	8	...
Eye diseases, not specified . . . . .	...	...	...	...	...	...	...	...	2	...	...	...	...
Fistula of lacrymal sac	1	'10	...	...	...	...	...	...	...	...	...	2	...
Functional night blindness	2	'10	...	...	...	...	...	...	16	...	2	15	...
Glaucoma . . . . .	...	...	...	...	...	...	...	...	2	...	...	3	...
Hæmorrhage from the iris	2	'10	...	...	...	...	...	...	...	...	...	...	...
Hæmorrhage from the vitreous humour . . . . .	...	...	...	...	...	...	...	...	3	...	...	...	...
Hypermetropia	30	1'30	...	5	...	...	...	...	...	...	...	...	...
Hypopyon . . . . .	...	...	...	...	...	...	...	...	...	...	...	2	...
Inflammation of lacrymal gland	1	'04	...	...	...	...	...	...	...	...	...	...	...
Iritis	29	2'22	...	2	1	...	1	...	66	...	3	32	...
Keratitis	20	1'95	...	2	...	...	...	...	74	...	2	35	...
Keratitis, ulcerative	39	4'85	...	1	1	...	...	...	244	...	8	257	...
Lacrymal abscess	1	'02	...	...	...	...	...	...	...	...	...	...	...

TABLE LIII—continued.

DETAIL of DISEASES.

DISEASES.	EUROPEAN ARMY OF INDIA.								NATIVE ARMY OF INDIA.			JAIL POPULATION OF INDIA.	
	MEN.				WOMEN.		CHILDREN.						
	Admis- sions.	Constantly sick.	Deaths.	Invalids	Admis- sions.	Deaths.	Admis- sions.	Deaths.	Admis- sions.	Deaths.	Invalids	Admis- sions.	Deaths.
EYE DISEASES— <i>contd.</i>													
Lenticular cataract	4	'51	...	1	...	...	...	...	13	...	6	43	...
Myopia	22	'96	...	2	1	...	...	...	5	...	2	...	...
Obstruction of nasal duct	1	'03	...	...	...	...	...	...	...	...	...	1	...
Œdema of the eyelids . . . . .	...	...	...	...	...	...	...	...	4	...	...	3	...
Opacities of the vitreous humour .	...	...	...	...	...	...	...	...	2	...	...	1	...
Opacity of the cornea	2	'19	...	1	...	...	...	...	10	...	5	18	...
Optic neuritis	3	'80	...	...	...	...	...	...	4	...	1	...	...
Panophthalmitis . . . . .	...	..	...	...	...	...	...	...	...	...	...	5	...
Ptosis	1	...	...	...	...	...	...	...	1	...	...	1	...
Retinitis	2	'21	...	...	...	...	...	...	2	...	...	...	...
Scleritis . . . . .	...	'07	...	1	...	...	...	...	2	...	...	2	...
Squint	4	'69	...	1	...	...	...	...	...	...	1	...	...
Staphyloma . . . . .	...	...	...	...	...	...	...	...	...	...	1	2	...
Stye	11	'38	...	...	...	...	...	...	83	...	...	26	...
Synechia . . . . .	...	...	...	...	...	...	...	...	3	...	...	...	...
Trichiasis . . . . .	...	...	...	...	...	...	...	...	2	...	...	12	...
EAR DISEASES—													
Accumulation in external meatus of wax or epidermis	10	'27	...	...	...	...	...	...	13	...	...	2	...
Deafness	15	'71	...	8	...	...	...	...	17	...	5	1	...
Hæmatoma of the auricle . . . .	...	...	...	...	...	...	...	...	4	...	...	...	...
Inflammation of the external ear .	553	23'66	...	...	...	...	8	...	149	...	...	195	...
" " " " ear, suppu- rative	14	'33	...	...	1	...	...	...	39	...	...	20	...
Inflammation of the internal ear .	6	'69	...	1	...	...	...	...	4	...	...	11	...
" " " " internal ear, sup- purative	1	'04	...	...	...	...	...	...	5	...	...	...	...
Inflammation of the middle ear .	221	14'12	...	13	3	...	3	...	63	...	3	29	...
" " " " " sup- purative	47	5'23	2	22	1	...	...	...	49	...	1	59	1
Perforation of the membrana tympani	114	7'33	...	24	...	...	...	...	24	...	2	1	...
Tinnitus . . . . .	...	'39	...	...	...	...	...	...	...	...	...	...	...
NOSE DISEASES—													
Abscess of the nose . . . . .	...	...	...	...	...	...	...	...	1	...	...	1	1
Adenoid vegetations	4	'30	...	...	...	...	...	...	...	...	...	...	...
Coryza	29	'58	...	...	...	...	1	...	136	...	...	64	...
Deviations of the septum	2	'12	...	...	...	...	...	...	...	...	...	...	...
Empyema of sinuses	1	'05	...	...	...	...	...	...	2	...	...	1	1
Epistaxis	8	'17	...	...	...	...	1	...	13	...	...	19	...
Inflammation of the accessory sinuses . . . . .	...	...	...	...	...	...	...	...	3	...	...	3	...
Inflammation of the naso-pharynx .	7	'18	...	...	...	...	...	...	26	...	...	5	...
Necrosis and caries of bones of nose	2	'12	...	...	...	...	...	...	...	...	...	1	1
Ozæna	5	'30	...	...	...	...	...	...	7	...	1	33	1
Rhinitis	11	'57	...	1	...	...	3	...	7	...	...	13	...
DISEASES OF THE CIRCULATORY SYSTEM—													
Adherent pericardium . . . . .	...	...	1	...	...	...	...	...	2	...	...	...	...
Aneurysm	9	1'58	5	7	...	...	...	...	...	...	...	4	1

DISEASES.	EUROPEAN ARMY OF INDIA.								NATIVE ARMY OF INDIA.			JAIL POPULATION OF INDIA.	
	MEN.				WOMEN.		CHILDREN.		Admis- sions.	Deaths.	Invalids.	Admis- sions.	Deaths.
	Admis- sions.	Constantly sick.	Deaths.	Invalids.	Admis- sions.	Deaths.	Admis- sions.	Deaths.					
DISEASES OF THE CIRCULATORY SYSTEM— <i>contd.</i>													
Aneurysm by anastomosis . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Angina pectoris	1	'06	...	...	1	...	...	...	...	1	...	3	4
Arterial nævus . . . . .	...	...	...	...	...	...	1	...	...	...	...	...	...
Atheroma of the heart . . . .	...	...	...	...	...	...	...	...	2	...	1	3	1
Atrophy of " " . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	1
Dilatation " "	7	'65	...	3	...	...	...	...	19	...	5	15	7
" " (orifice)	1	...	1	...	...	...	...	...	...	...	...	...	...
Disordered action of the heart .	354	32'60	...	46	5	...	1	...	39	...	6	13	...
Effects of strain on heart . . .	4	'41	...	...	...	...	...	...	11	...	...	...	...
Embolism of arteries . . . . .	...	...	...	...	...	...	...	...	1	1	...	1	1
Embolus . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	1
Endarteritis obliterans . . . .	...	...	...	...	...	...	...	...	...	...	...	2	2
Endocarditis . . . . .	...	'05	...	1	...	...	1	1	1	1	...	...	...
Fatty degeneration of the muscular substance of the heart . . .	2	'01	2	...	...	...	...	...	3	4	...	12	9
Hydropericardium . . . . .	...	...	...	...	...	...	...	...	1	...	...	1	1
Hypertrophy of the heart . . .	1	'11	...	...	...	...	...	...	1	...	1	1	...
Obliteration of veins . . . . .	...	'03	...	...	...	...	...	...	...	...	...	...	...
Pericarditis	4	'17	3	...	...	...	...	...	6	1	...	14	8
Phlebitis	20	1'63	...	4	2	...	...	...	14	...	...	8	1
Raynaud's disease . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Rupture of artery . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	1
Rupture of the heart . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	1
Syncope	6	'07	2	...	...	...	2	3	7	7	...	2	7
Thrombosis of arteries	7	'63	...	...	...	...	...	...	3	1	...	1	1
" " veins	10	'67	...	2	...	...	...	...	8	...	...	1	...
Thrombus . . . . .	...	...	...	...	...	...	...	...	...	...	...	2	3
Valvular disease of the heart . .	80	10'55	3	51	9	1	...	...	45	6	15	161	45
Varicose aneurysm . . . . .	...	...	...	...	...	...	...	...	3	...	...	...	...
Varix	94	6'99	...	6	7	...	...	...	9	...	2	...	...
Venous nævus	1	'02	...	...	...	...	...	...	...	...	...	2	...
DISEASES OF THE RESPIRATORY SYSTEM—													
Abscess of the lungs . . . . .	...	...	...	...	...	...	...	...	3	1	...	2	2
Atelectasis . . . . .	...	...	...	...	...	...	3	3	...	...	...	...	...
Bronchitis	992	44'30	1	5	24	...	183	10	1,895	5	15	1,960	36
Broncho-pneumonia	21	1'53	2	...	1	...	35	14	85	15	...	47	11
Cirrhosis of the lungs	1	'12	1	...	...	...	...	...	...	...	...	25	6
Collapse of lung . . . . .	...	...	...	...	...	...	...	...	1	...	1	...	...
Congestion of the lungs	4	'34	...	...	...	...	...	...	6	...	...	18	4
Dilatation of bronchi . . . . .	...	...	...	...	...	...	...	...	1	...	...	7	2
Empyema of pleura	4	'45	2	2	...	...	...	...	6	2	...	7	3
Emphysema of the lungs	5	'31	...	3	...	...	...	...	5	...	1	4	1
Gangrene of the lungs . . . . .	...	...	...	...	...	...	...	...	1	...	...	23	21
Hæmoptysis	1	'08	...	...	1	...	...	...	8	...	...	25	...
Hydrothorax . . . . .	...	...	...	...	...	...	...	...	2	...	...	1	...
Laryngitis	33	2'32	...	3	...	...	1	...	145	1	...	13	...
Neuralgia of the larynx . . . .	...	...	...	...	...	...	...	...	...	...	...	2	...
Œdema of the glottis . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	1
" " " lungs . . . . .	...	...	...	...	...	...	...	...	...	...	...	2	2

TABLE LIII—continued.

DETAIL of DISEASES.

DISEASES.	EUROPEAN ARMY OF INDIA.								NATIVE ARMY OF INDIA.			JAIL POPULATION OF INDIA.	
	MEN.				WOMEN.		CHILDREN.		Admis- sions.	Deaths.	Invalids.	Admis- sions.	Deaths.
	Admis- sions.	Constantly sick.	Deaths.	Invalids.	Admis- sions.	Deaths.	Admis- sions.	Deat s.					
DISEASES OF THE RESPIRATORY SYSTEM—contd.													
Phthisis not defined as tubercle	2	'58	...	6	1	...	1	...	3	1	...	...	...
Pleurisy	93	6'17	...	3	4	...	...	...	297	11	9	193	15
Respiratory diseases, not specified . . . . .	...	...	...	...	...	...	...	...	4	...	...	...	...
Spasmodic asthma	38	3'16	...	8	5	...	...	...	132	1	8	672	11
Tracheitis	1	'02	...	...	...	...	...	...	10	...	...	...	...
DISEASES OF THE DIGESTIVE SYSTEM—													
Abscess of the liver	115	23'53	55	31	1	1	...	...	11	2	...	11	10
Adhesions of peritoneum	1	'09	...	...	...	...	...	...	...	...	...	...	...
Appendicitis	110	11'03	12	7	3	1	...	...	64	7	2	26	4
Ascites . . . . .	...	...	...	...	...	...	...	...	6	...	1	30	4
Atrophy of the intestines . . . . .	...	...	...	...	...	...	1	1	...	...	...	...	...
Atrophy of the liver . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Biliary colic	1	'07	...	...	1	...	...	...	3	...	...	10	...
Caries of dentine	211	9'23	...	9	7	...	2	...	44	...	...	38	...
" " periosteum and alveoli	46	1'94	...	...	...	...	...	...	2	...	...	8	...
Cholecystitis	15	'69	...	...	1	...	...	...	12	...	...	47	1
Cirrhosis of the liver	7	'54	2	1	...	...	...	...	4	2	1	77	34
Colic	413	9'07	...	...	11	...	3	...	268	...	...	337	2
Colitis	75	5'13	1	...	3	...	4	1	31	...	...	66	9
Compression of intestines . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	1
Congestion of the liver	322	15'87	...	7	7	...	2	...	32	...	1	29	...
Constipation	177	5'25	...	...	9	...	10	...	229	...	...	256	...
Diarrhœa	1,169	35'27	1	...	51	...	303	46	1,115	8	1	4,306	105
Digestive diseases, not specified . . . . .	...	...	...	...	...	...	...	...	20	...	...	...	...
atation of intestines	1	'06	...	...	...	...	...	...	...	...	...	...	...
" " the stomach	4	'84	...	1	...	...	...	...	3	...	...	3	...
Displacement of the stomach . . . . .	...	...	...	...	...	...	...	...	3	...	...	...	...
Disorders of dentition . . . . .	...	...	...	...	...	...	77	11	...	...	...	...	...
Elongated uvula	1	'03	...	...	...	...	...	...	3	...	...	4	...
Enteralgia . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Enteritis	114	3'93	6	...	9	2	97	51	92	16	...	260	26
Fæcal accumulation in the intestines	5	'13	...	...	1	...	...	...	3	...	...	20	1
Fissure of the anus	16	'91	...	...	3	...	...	...	13	...	...	15	...
" " lips . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Fistula in ano	29	2'42	...	1	...	...	...	...	46	...	1	71	1
Gall stones	1	'06	...	...	...	...	...	...	5	...	...	2	...
Gangrene of the intestines . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	1
Gangrene of the mouth . . . . .	...	...	...	...	...	...	...	...	1	1	...	8	1
" " rectum	1	'02	1	...	...	...	...	...	...	...	...	...	...
Gastralgia	4	'12	...	...	1	...	...	...	2	...	...	2	...
Gastritis	203	9'04	...	1	24	...	6	1	51	1	...	103	2
Glossitis	4	'10	...	...	1	...	...	...	10	...	...	2	...
Gum-boil	169	5'14	...	...	2	...	1	...	100	...	...	192	...
Hæmatemesis	3	'17	...	...	...	...	...	...	3	1	1	8	2
Hæmorrhage from the intestines . . . . .	...	'02	...	...	...	...	...	...	1	...	...	...	...

DISEASES.	EUROPEAN ARMY OF INDIA.								NATIVE ARMY OF INDIA.			JAIL POPULATION OF INDIA.	
	MEN.				WOMEN.		CHILDREN.		Admis- sions.	Deaths.	Invalids.	Admis- sions.	Deaths.
	Admis- sions.	Constantly sick.	Deaths.	Invalids.	Admis- sions.	Deaths.	Admis- sions.	Deaths.					
DISEASES OF THE DIGESTIVE SYSTEM— <i>contd.</i>													
Hæmorrhage from the stomach . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Heartburn . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Hepatitis	288	23'76	2	23	3	...	...	...	54	2	...	45	2
Hernia	96	11'22	...	10	2	...	9	...	42	2	10	55	...
Hypertrophy of the tonsils	6	'26	...	...	...	...	1	...	2	...	...	...	...
Impaction of teeth	1	'01	...	...	...	...	...	...	...	...	...	3	...
Indigestion	584	19'86	...	2	46	...	16	...	296	...	2	709	4
Inflammation of the dental pulp	2	'11	...	...	...	...	...	...	...	...	...	9	...
" " " periosteum	62	2'01	...	...	1	...	...	...	7	...	...	3	...
Inflammation of the gum and periosteum	9	1'36	...	...	1	...	1	...	34	...	...	12	...
Inflammation of the intestines	17	'84	...	...	1	...	10	3	...	...	...	36	3
" " jaw . . . . .	...	...	...	...	...	...	...	...	3	...	...	...	...
" " lips . . . . .	...	...	...	...	...	...	...	...	4	...	...	2	...
" " pancreas . . . . .	...	...	...	...	...	...	...	...	...	...	...	3	3
" " pharynx and œsophagus	25	1'09	...	...	1	...	2	...	68	...	...	23	...
Inflammation of the salivary glands	3	'07	...	...	...	...	2	...	45	...	...	10	...
Intestinal indigestion [.	1	'01	...	...	1	...	5	5	...	...	...	2	...
Intussusception . . . . .	...	...	...	...	...	...	1	1	...	...	...	...	...
Ischio-rectal abscess	8	'42	...	...	...	...	...	...	18	...	...	8	...
Jaundice	156	8'42	...	...	2	...	2	...	286	...	...	296	7
Laceration of the anus . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Loss of appetite	2	'16	...	...	...	...	1	...	...	...	...	...	...
Melæna . . . . .	...	...	...	...	...	...	...	...	...	...	...	6	...
Necrosis of alveoli . . . . .	...	...	...	...	...	...	...	...	1	...	...	2	...
" " cement of dentine . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
" " jaw	5	'50	...	...	...	...	...	...	2	1	...	1	...
Obstruction of the intestines	1	'07	...	...	...	...	...	...	1	...	...	10	4
Paresis	1	'03	...	...	...	...	...	...	...	...	...	...	...
Perforation of the intestines . . . . .	...	...	...	...	...	...	...	...	...	...	...	6	5
" " stomach . . . . .	...	...	...	...	...	...	...	...	...	...	...	2	1
Perihepatitis	5	'45	...	...	1	...	...	...	3	...	...	2	...
Periproctitis	7	'95	...	2	...	...	...	...	14	...	1	8	1
Peritonitis	6	'63	...	...	2	2	...	...	12	7	1	15	15
Peritonsillar abscess	4	'12	...	...	...	...	...	...	...	...	...	...	...
Piles	404	22'69	...	1	10	...	...	...	173	...	7	432	...
Post-pharyngeal abscess . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Proctitis	3	'28	...	...	...	...	...	...	2	...	...	4	...
Prolapse of the rectum and anus	4	'16	...	...	...	...	5	...	1	...	...	25	1
Pyorrhœa alveolaris	7	'27	...	...	...	...	...	...	...	...	...	...	...
Quinsy	80	2'35	...	...	1	...	3	1	14	...	...	48	...
Recto-urethral fistula . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Recto-vesical fistula . . . . .	...	...	...	...	...	...	...	...	...	...	...	3	...
Retching	1	'02	...	...	...	...	...	...	...	...	...	...	...
Salivary calculus . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Salivary fistula . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Sore throat	301	7'93	...	...	11	...	10	...	88	...	...	58	...
Sprue	1	'31	1	1	...	...	...	...	8	2	1	2	...
Stomatitis	15	'79	...	...	...	...	9	...	80	...	...	89	...

TABLE LIII—continued.

DETAIL of DISEASES.

DISEASES.	EUROPEAN ARMY OF INDIA.								NATIVE ARMY OF INDIA.			JAIL POPULATION OF INDIA.		
	MEN.				WOMEN.		CHILDREN.		Admis- sions.	Deaths.	Invalids.	Admis- sions.	Deaths.	
	Admis- sions.	Constantly sick.	Deaths.	Invalids	Admis- sions.	Deaths.	Admis- sions.	Deaths.						
DISEASES OF THE DIGESTIVE SYSTEM—concl'd.														
Stricture of the intestines . . .	...	...	...	...	...	...	...	...	...	...	...	2	1
" " œsophagus . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
" " pylorus . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Suppuration of the dental pulp .	...	...	...	...	...	...	...	...	1	...	...	...	...
Suppuration of the periosteum, gums and alveoli . . .	...	...	...	...	...	...	...	...	33	...	3	9	..
Suppuration of the salivary glands .	...	...	...	...	...	...	...	...	2	...	...	...	...
Tonsillitis	1,246	41'31	...	...	35	...	31	1	248	...	...	61	...
Toothache . . . . .	...	...	...	...	1	...	...	...	3	...	...	3	...
Tympanites . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Ulceration of the gums and periosteum	1	'08	...	...	...	...	...	...	3	...	...	49	...
Ulceration of the intestines . . .	1	'04	...	...	...	...	1	1	...	...	...	2	...
" " " perforating . . .	1	'03	1	...	...	...	...	...	...	...	...	3	1
" " lips . . . . .	...	...	...	...	...	...	...	...	9	...	...	...	...
" " mouth	6	'25	...	...	...	...	...	...	15	...	...	5	1
" " palate and fauces . .	7	1'25	...	...	...	...	1	1	7	...	...	...	...
" " pharynx	1	'05	...	...	1	...	...	...	3	...	...	...	...
" " rectum and anus . . .	3	'22	...	...	...	...	...	...	2	...	...	3	1
" " stomach	2	'28	...	...	3	...	...	...	4	2	...	4	2
" " " perforating . . .	...	...	...	...	...	...	...	...	1	...	...	4	1
" " tongue . . . . .	...	...	...	...	...	...	...	...	6	...	...	2	...
Volvulus . . . . .	...	...	...	...	...	...	...	...	1	...	...	13	13
Vomiting . . . . .	...	...	...	...	3	...	...	...	7	...	...	1	...
Yellow atrophy of the liver (acute) .	...	...	...	...	...	...	...	...	...	...	...	2	2
DISEASES OF THE LYMPHATIC SYSTEM—														
Abscess of spleen . . . . .	...	...	...	...	...	...	...	...	...	...	...	4	2
Atrophy of " . . . . .	...	...	...	...	...	...	...	...	...	...	...	20	...
Congestion of "	1	'04	...	...	...	...	...	...	2	...	...	...	...
Elephantiasis of the lymphatic vessels	...	...	...	...	...	...	...	...	...	...	...	17	1
Embolism of spleen . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	1
Fibrosis of lymphatic glands . . .	...	...	...	...	...	...	...	...	2	...	...	...	...
Hypertrophy " " . . . . .	...	...	...	...	...	...	...	...	5	...	1	...	...
Inflammation lymphatic glands . .	597	61'94	...	2	...	...	16	...	274	...	4	238	2
" " vessels	22	'83	...	...	...	...	...	...	10	...	...	13	...
Lardaceous disease of spleen . . .	...	...	...	...	...	...	...	...	...	...	...	8	...
Mechanical affections of spleen . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Necrosis of lymphatic glands . . .	1	'02	...	...	...	...	...	...	...	...	...	...	...
Perisplenitis	2	'06	...	...	...	...	...	...	1	...	...	1	...
Rupture of spleen	1	'01	1	...	...	...	...	...	...	...	...	...	...
Splenitis	21	1'47	...	...	...	...	1	...	135	...	7	26	...
Suppuration of lymphatic glands . .	40	4'82	...	...	...	...	1	...	49	...	1	139	1
DISEASES OF THE THYROID GLAND—														
Inflammation of the thyroid gland .	1	'33	...	...	...	...	...	...	...	...	...	...	...
Goitre	4	'21	...	1	...	...	1	...	22	...	...	1	...
Suppuration of the thvroid gland . .	2	'05	...	...	...	...	...	...	...	...	...	...	...

DISEASES.	EUROPEAN ARMY OF INDIA.								NATIVE ARMY OF INDIA.			JAIL POPULATION OF INDIA.	
	MEN.				WOMEN.		CHILDREN.		Admis- sions.	Deaths.	Invalids.	Admis- sions.	Deaths.
	Admis- sions.	Constantly sick.	Deaths.	Invalids.	Admis- sions.	Deaths.	Admis- sions.	Deaths.					
DISEASES OF THE URINARY SYSTEM—													
Abscess of kidney . . . . .	...	...	...	...	...	...	...	...	...	...	...	4	3
Acute nephritis	37	4'44	8	9	4	...	...	...	8	...	1	28	6
Albuminuria	5	'25	...	...	2	...	...	...	5	...	...	17	2
Bacilluria	2	'34	...	...	...	...	...	...	...	...	...	...	...
Bright's disease . . . . .	...	'10	...	...	...	...	...	...	6	1	...	76	18
Calculus in kidney	6	'83	...	2	1	...	...	...	11	...	1	6	1
„ ureter of kidney . . . . .	...	...	...	...	...	...	...	...	2	...	1	...	...
„ in the bladder	4	'43	...	...	...	...	...	...	7	...	...	5	...
Chronic nephritis	16	2'33	1	10	1	...	...	...	11	...	4	23	10
Chyluria . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Congestion of kidney	2	'18	...	...	...	...	...	...	...	...	...	...	...
Cystic disease of kidney . . . . .	...	...	...	...	...	...	...	...	1	1	...	...	...
Diabetes insipidus	3	'31	...	...	...	...	...	...	2	2	...	16	...
Disseminated suppurative nephritis . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	1
Glycosuria . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Granular kidney	1	'51	...	2	...	...	...	...	2	1	...	4	3
Hæmaturia	17	'94	...	...	...	...	...	...	9	...	...	11	...
Hæmoglobinuria . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Hydronephrosis . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	1
Incontinence of urine	38	2'36	...	3	...	...	...	...	8	...	...	4	...
Inflammation of the bladder	21	2'08	...	1	3	...	2	...	5	...	...	20	4
Irritability „ „	6	'25	...	...	1	...	...	...	1	...	...	3	...
Lithuria . . . . .	...	...	...	...	...	...	...	...	1	...	...	1	...
Movable kidney	2	'29	...	...	1	...	...	...	1	...	...	...	...
Nephralgia . . . . .	...	...	...	...	...	...	...	...	1	...	...	1	...
Oxaluria	1	'02	...	...	...	...	...	...	...	...	...	...	...
Perinephritic abscess	2	'34	...	...	...	...	...	...	...	...	...	1	1
Phosphaturia	1	'02	...	...	...	...	...	...	1	...	...	...	...
Pyelitis	1	'12	...	...	...	...	...	...	...	...	...	1	...
Pyonephrosis	1	'11	...	...	1	1	...	...	...	...	...	2	2
Renal colic.	11	'80	...	...	1	...	...	...	31	...	...	13	...
Retention of urine	6	'17	...	...	...	...	...	...	1	...	...	16	...
Ulceration of the bladder	1	'07	...	...	...	...	...	...	...	...	...	...	...
DISEASES OF THE MALE ORGANS OF GENERATION—													
Abscess of the penis	3	'14	...	...	...	...	...	...	1	...	...	1	...
„ „ scrotum	6	'16	...	...	...	...	...	...	4	...	...	8	...
„ „ testicle	2	'13	...	...	...	...	...	...	...	...	...	10	...
„ „ urethra . . . . .	...	...	...	...	...	...	...	...	1	...	...	1	...
Atrophy of the testicle	2	'04	...	1	...	...	...	...	...	...	...	...	...
Balanitis	101	4'65	...	...	...	...	...	...	9	...	...	6	...
Calculus of prostate . . . . .	...	...	...	...	...	...	...	...	1	...	...	2	1
Condyloma of penis	5	'22	...	...	...	...	...	...	2	...	...	6	...
Epididymitis	22	1'71	...	...	...	...	...	...	33	...	...	9	...
Extravasation of urine . . . . .	...	...	...	...	...	...	...	...	1	1	...	2	1
Fistula of scrotum . . . . .	...	...	...	...	...	...	...	...	2	...	...	...	...
Gangrene of the penis . . . . .	...	...	...	...	...	...	...	...	1	1	...	...	...

TABLE LIII—continued.

DETAIL of DISEASES.

DISEASES.	EUROPEAN ARMY OF INDIA.								NATIVE ARMY OF INDIA.			JAIL POPULATION OF INDIA.	
	MEN.				WOMEN.		CHILDREN.		Admis- sions.	Deaths.	Invalids.	Admis- sions.	Deaths.
	Admis- sions.	Constantly sick.	Deaths.	Invalids.	Admis- sions.	Deaths.	Admis- sions.	Deaths.					
DISEASES OF THE MALE ORGANS OF GENERATION—concl'd.													
Gleet	1	'23	...	...	...	...	...	...	...	...	...	7	...
Hæmatocele of the spermatic cord .	1	'06	...	...	...	...	...	...	...	...	...	2	...
" " tunica vagina- lis	1	'03	...	...	...	...	...	...	...	...	...	26	...
Hæmorrhage from the urethra .	1	'03	...	...	...	...	...	...	...	...	...	1	...
Hydrocele of the spermatic cord .	4	'13	...	...	...	...	...	...	4	...	...	...	...
" " tunica vaginalis .	41	3'01	...	...	...	...	1	...	35	...	...	106	...
Hypertrophy of the prostate . .	...	...	...	...	...	...	...	...	...	...	...	4	...
Impacted calculus . . . . .	...	...	...	...	...	...	...	...	...	...	...	2	...
Inflammation of the prostate . .	1	'07	...	...	...	...	...	...	1	...	...	1	...
" " scrotum	1	'01	...	...	...	...	...	...	...	...	...	1	...
" " spermatic cord .	2	'15	...	...	...	...	...	...	6	...	...	...	...
" " testicle	1	'04	...	...	...	...	...	...	6	...	...	100	...
" " tunica vaginalis	...	'01	...	...	...	...	...	...	...	...	...	...	...
Œdema of the penis . . . . .	...	...	...	...	...	...	...	...	1	...	...	1	...
" " prepuce	1	'02	...	...	...	...	...	...	...	...	...	1	...
" " scrotum . . . . .	...	...	...	...	...	...	...	...	...	...	...	2	...
Orchitis	287	16'41	...	1	...	...	1	...	182	...	2	81	...
Paraphimosis	12	'87	...	...	...	...	...	...	6	...	...	16	...
Phimosis	56	3'29	...	...	...	...	...	...	8	...	1	87	...
Posthitis	1	'08	...	...	...	...	...	...	1	...	...	...	...
Pruritus	1	'02	...	...	...	...	...	...	4	...	...	...	...
Sloughing of the scrotum . . . .	...	...	...	...	...	...	...	...	1	...	...	2	1
Soft chancre of the penis	1,104	114'79	...	...	...	...	...	...	541	...	1	135	...
" " " scrotum . . . .	...	...	...	...	...	...	...	...	...	...	...	5	...
Spermatorrhœa . . . . .	...	...	...	...	...	...	...	...	2	...	...	...	...
Stricture of the urethra	44	3'23	...	3	...	...	...	...	12	...	1	49	...
Ulcer of the penis	17	'99	...	...	...	...	...	...	34	...	...	31	...
" " urethra	1	'04	...	...	...	...	...	...	...	...	...	1	...
Urethral fistula . . . . .	...	'14	...	...	...	...	...	...	2	...	...	8	...
Urethritis	47	2'06	...	...	...	...	...	...	14	...	...	9	...
Varicocele	85	5'99	...	3	...	...	1	...	8	...	...	3	...
DISEASES OF THE FEMALE ORGANS OF GENERATION--													
Abortion . . . . .	...	...	...	...	74	2	...	...	...	...	...	13	...
Abscess of areola . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
" " breast . . . . .	...	...	...	...	3	...	...	...	...	...	...	...	...
Amenorrhœa . . . . .	...	...	...	...	1	...	...	...	...	...	...	3	...
Anteversion of uterus . . . . .	...	...	...	...	1	...	...	...	...	...	...	...	...
Asphyxia of infant . . . . .	...	...	...	...	...	...	...	...	...	...	...	3	...
Cramp and spurious labour pains .	...	...	...	...	4	...	...	...	...	...	...	...	...
Discharge of watery fluid from uterus . . . . .	...	...	...	...	1	...	...	...	...	...	...	...	...
Displacement of uterus. . . . .	...	...	...	...	1	...	...	...	...	...	...	...	...
Dysmenorrhœa . . . . .	...	...	...	...	6	...	...	...	...	...	...	1	...
Endometritis . . . . .	...	...	...	...	24	...	...	...	...	...	...	...	...
Erosion of cervix uteri . . . . .	...	...	...	...	4	...	...	...	...	...	...	...	...
Gangrene of uterus . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	1

DISEASES.	EUROPEAN ARMY OF INDIA.								NATIVE ARMY OF INDIA.			JAIL POPULATION OF INDIA	
	MEN.				WOMEN.		CHILDREN.		Admis- sions.	Deaths.	Invalids.	Admis- sions.	Deaths.
	Admis- sions.	Constantly sick.	Deaths.	Invalids.	Admis- sions.	Deaths.	Admis- sions.	Deaths.					
DISEASES OF THE FEMALE ORGANS OF GENERATION—concl'd.													
Hæmorrhage during parturition	1	...	...	...	...	...	...	...	...
„ from uterus	1	...	...	...	...	...	...	...	...
„ from uterus during preg- nancy	5	...	...	...	...	...	...	1	...
Hæmorrhagic mole	1	...	...	...	...	...	...	...	...
Hypertrophy of vulva	1	...
Inflammation of the ovary	4	...	...	...	...	...	...	...	...
„ „ uterus	1	...
„ „ vagina	1	...	...	...	...	...	...	...	...
„ „ vulva	1	...	...	...	...	...	...	1	...
Laceration of the cervix uteri	2	...	...	...	...	...	...	...	...
Leucorrhœa	8	...	...	...	...	...	...	1	...
Mastitis	5	...	...	...	...	...	...	1	...
Mechanical obstacle to the expulsion of the fœtus	1	1	...	...	...	...	...	4	...
Menorrhagia	23	...	...	...	...	...	...	7	...
Metritis	6	...	...	...	...	...	...	1	...
„ in pregnancy	1	...	...	...	...	...	...	...	...
Metrorrhagia	9	...	...	...	...	...	...	...	...
Missed labour	1	...	...	...	...	...	...	...	...
Over-distension of the uterus	1	...
Parametritis	7	...	...	...	...	...	...	...	...
Perimetritis	1	...	...	...	...	...	...	1	...
Premature birth	17	17	...	...	...	...	...
Procidentia of uterus	3	...	...	...	...	...	...	...	...
Prolapse of vagina	3	...	...	...	...	...	...	...	...
Prolapsus of uterus	3	...	...	...	...	...	...	2	...
Puerperal sapræmia	1	...	...	...	...	...	...	2	...
Retention of placenta	1	...	...	...	...	...	...	1	...
Retroversion of uterus	3	...	...	...	...	...	...	...	...
Rupture of perineum	4	...	...	...	...	...	...	...	...
Sterility	2	...	...	...	...	...	...	...	...
Still birth	5	...	...	...	...	...	...	...	...
Stricture of cervicle canal	1	...	...	...	...	...	...	...	...
„ „ internal oo	1	...	...	...	...	...	...	...	...
Subinvolution of the uterus	2	...	...	...	...	...	...	...	...
Sudden death after delivery	1	...	...	...	...	...	...	...
Ulcer of the vulva	2	...	...	...	...	...	...	...	...
Vesicular mole	1	...	...	...	...	...	...	...	...
DISEASES OF THE FEMALE BREAST—													
Inflammation of mammary glands	3	...	1	...	...	...	...	2	...
„ „	3	...	...	...	...	...	...	...	...
Suppuration of the mammary gland puerperal.	7	...	...	...	...	...	...	...	...
DISEASES OF THE MALE BREAST—													
Hypertrophy of the breast . . .	1	'03	...	...	...	...	...	...	...	...	...	...	...
Inflammation of the breast . . .	1	'01	...	...	...	...	...	...	5	...	...	...	...

TABLE LIII—continued.

DETAIL of DISEASES.

DISEASES.	EUROPEAN ARMY OF INDIA.								NATIVE ARMY OF INDIA.			JAIL POPULATION OF INDIA.	
	MEN.				WOMEN.		CHILDREN.		Admis- sions.	Deaths.	Invalids.	Admis- sions.	Deaths.
	Admis- sions.	Constantly sick.	Deaths.	Invalids.	Admis- sions.	Deaths.	Admis- sions.	Deaths.					
DISEASES OF THE ORGANS OF LOCOMOTION—													
Abscess of bursæ	8	'34	...	...	I	...	...	...	27	...	...	...	...
Adhesions of tendons	I	'01	...	I	...	...	...	...	3	...	...	...	...
Angular curvature of spine . . . . .	...	...	...	...	...	...	...	...	...	...	...	I	...
Ankylosis	I	'01	...	...	...	...	...	...	5	...	3	25	...
Atrophy of muscles	2	'10	...	...	...	...	I	...	2	...	...	...	...
Bunion	4	'16	...	I	...	...	...	...	I	...	...	...	...
Bursal cyst	2	'17	...	...	...	...	...	...	3	...	...	...	...
Caries of bones	6	'46	...	I	...	...	...	...	4	...	...	18	I
„ „ spine	2	'17	...	I	...	...	I	...	2	...	I	I	I
Club-foot . . . . .	...	...	...	2	...	...	...	...	...	...	...	...	...
Club-hand	3	'05	...	...	...	...	...	...	...	...	...	...	...
Contraction of fasciæ	6	'58	...	2	...	...	...	...	3	...	...	I	...
Contraction of tendons	5	'30	...	...	...	...	...	...	2	...	I	...	...
Contracture of muscles . . . . .	...	...	...	...	...	...	...	...	2	...	...	...	...
Coxa vara . . . . .	...	...	...	...	...	...	...	...	2	...	I	...	...
Deformities of the toes	4	'24	...	...	...	...	...	...	...	...	...	...	...
Degenerations of muscles . . . . .	...	...	...	I	...	...	...	...	...	...	...	...	...
Dislocation of intra-articular cartilage	10	I'22	...	...	...	...	...	...	2	...	...	I	...
„ „ bone . . . . .	...	...	...	...	...	...	...	...	...	...	...	I	...
Excessive formation of callus in bones . . . . .	...	...	...	...	...	...	...	...	I	...	...	...	...
Flat foot	22	'99	...	19	...	...	...	...	2	...	...	...	...
Ganglion	7	'22	...	...	...	...	...	...	5	...	...	...	...
Hallux valgus	11	'89	...	2	...	...	...	...	...	...	...	...	...
Hammer toe	53	4'55	...	2	...	...	...	...	2	...	...	...	...
Hypertrophy of bone . . . . .	...	...	...	...	...	...	...	...	I	...	...	...	...
Idiopathic muscular atrophy . . . . .	..	...	...	...	...	...	...	...	I	...	...	...	...
Inflammation of bursæ	32	I'43	...	...	3	...	...	...	23	...	...	5	...
„ „ fasciæ . . . . .	...	...	...	...	...	...	...	...	I	...	...	...	...
„ „ joints (not defd.)	14	I'62	...	I	I	...	...	...	35	...	2	I	...
„ „ muscles . . . . .	...	...	...	...	...	...	...	...	8	...	...	8	..
„ „ spine . . . . .	...	...	...	...	...	...	...	...	2	...	I	...	...
Knock-knee . . . . .	...	...	...	...	...	...	...	...	2	...	...	...	...
Lateral curvature of the spine	I	'07	...	I	...	...	...	...	...	...	...	...	...
Loose body	14	I'00	...	2	...	...	...	...	...	...	...	...	...
Lumbago	10	'62	...	...	...	...	...	...	220	...	...	...	...
Myalgia	369	13'69	...	I	6	...	I	...	329	...	4	175	...
Myositis	4	'11	...	...	...	...	...	...	...	...	...	...	...
Necrosis of bones	4	'72	...	I	...	...	...	...	5	...	I	24	...
Osteitis	8	'45	...	2	...	...	...	...	10	...	...	4	...
Osteo-myelitis (chronic)	I	'14	...	...	...	...	...	...	...	...	...	...	...
Periostitis	41	3'11	...	I	2	...	...	...	51	...	2	15	...
„ „ circumscribed . . . . .	...	...	...	...	...	...	...	...	15	...	...	...	...
Psoas, lumbar and post-pharyngeal abscesses.	5	'79	I	...	...	...	...	...	3	...	...	I	I
Rupture of muscles	3	'13	...	...	...	...	...	...	4	...	...	...	...
„ „ tendons	I	'05	...	...	...	...	...	...	...	...	...	...	...
Stiff joint	16	I'02	...	5	...	...	...	...	11	...	2	...	...
Suppuration of muscles . . . . .	...	...	...	...	...	...	...	...	2	...	...	I	...
Synovitis	902	51'73	...	8	I	...	I	...	554	...	14	152	4

DISEASES.	EUROPEAN ARMY OF INDIA.								NATIVE ARMY OF INDIA.			JAIL POPULATION OF INDIA.	
	MEN.				WOMEN.		CHILDREN.		Admis- sions.	Deaths.	Invalids.	Admis- sions.	Deaths.
	Admis- sions.	Constantly sick.	Deaths.	Invalids.	Admis- sions.	Deaths.	Admis- sions.	Deaths.					
DISEASES OF THE ORGANS OF LOCO- MOTION—concl'd.													
Talipes cavus	2	'08	...	..	...	...	...	...	...	...	...	...	...
Tenosynovitis	3	'11	...	...	...	...	...	..	13	...	...	6	...
Thecal abscess	1	'03	...	...	...	...	...	...	3	...	...	10	...
DISEASES OF THE CONNECTIVE TISSUE—													
Abscess of the connective tissue . .	824	42'52	1	1	10	...	22	...	1,529	1	1	3,843	6
Elephantiasis . . . . .	...	...	...	...	...	...	...	...	2	...	...	10	...
Gangrene . . . . .	...	...	...	...	...	...	...	...	2	...	...	10	6
Inflammation	872	38'93	1	1	16	...	9	...	370	1	...	823	29
Œdema	7	'46	...	...	...	...	...	...	4	...	...	32	...
DISEASES OF THE SKIN—													
Acne	12	'51	...	...	...	...	2	...	16	...	...	11	...
Alopecia	1	'05	...	...	...	...	...	...	3	...	...	...	...
Boil	1,096	41'49	...	...	9	...	25	...	2,722	...	...	1,192	...
Bromidrosis	1	'02	...	...	...	...	...	...	...	...	...	...	...
Carbuncle	15	'75	1	1	...	...	...	...	35	...	...	176	1
Chilblain . . . . .	...	...	...	...	...	...	...	...	...	...	...	2	...
Corn	22	'59	...	...	...	...	...	...	19	...	...	13	...
Delhi boil	9	'91	...	1	...	...	...	...	254	...	...	6	...
Dermatitis herpetiformis . . .	7	'44	...	...	...	...	...	...	14	...	...	13	...
„ seborrhœica . . . . .	...	...	...	...	...	...	...	...	3	...	...	1	...
Eczema	407	20'52	...	1	4	...	24	...	408	...	4	349	...
Erythema	11	'57	...	...	1	...	2	...	10	...	...	4	...
Folliculitis	12	'49	...	...	...	...	...	...	1	...	...	...	...
Frost-bite . . . . .	...	...	...	...	...	...	...	...	3	...	...	...	...
Gangrene . . . . .	...	...	...	...	...	...	...	...	25	...	1	...	...
Herpes	44	1'39	...	...	1	...	...	...	92	...	...	56	...
Hidrocystoma	7	'21	...	...	...	...	...	...	...	...	...	...	...
Hyperidrosis	5	'13	...	...	...	...	...	...	4	...	...	...	...
Ichthyosis . . . . .	...	...	...	...	...	...	...	...	1	...	...	2	...
Impetigo, contagiosa	77	2'93	...	...	...	...	7	...	63	...	1	9	...
„ herpetiformis	8	'37	...	...	...	...	1	...	5	...	...	..	...
Keratosis . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Leucodermia . . . . .	...	...	...	...	...	...	...	...	2	...	...	2	...
Lichen	2	'10	...	...	...	...	...	...	7	...	...	9	...
Lupus erythematosus	1	'20	...	1	...	...	...	...	1	...	...	...	...
Molluscum contagiosum . . .	2	'08	...	...	...	...	2	...	1	...	...	...	...
Mycosis fungoides . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Onychia	267	13'42	...	...	2	...	...	...	50	...	...	27	...
Pemphigus	96	4'62	...	...	...	...	2	...	13	...	...	9	...
Pityriasis rosea	2	'12	...	...	...	...	...	...	2	...	...	...	...
„ rubra	6	'25	...	...	...	...	...	...	6	...	...	4	...
Prickly heat	12	'38	...	...	...	...	...	...	1	...	...	6	...
Prurigo . . . . .	...	...	...	...	...	...	...	...	2	...	...	3	...
Psoriasis	78	5'22	...	...	...	...	...	...	19	...	...	12	...
Seborrhœa	3	'54	...	1	...	...	...	...	...	...	...	...	...
Sudamina	1	'01	...	...	...	...	...	...	2	...	...	...	...
Sycosis	34	2'39	...	1	...	...	...	...	12	...	...	2	...
Ulcer	259	11'85	...	2	7	...	2	...	1,244	...	2	2,975	2

TABLE LIII—continued.

DETAIL of DISEASES.

DISEASES.	EUROPEAN ARMY OF INDIA.								NATIVE ARMY OF INDIA.			JAIL POPULATION OF INDIA.	
	MEN.				WOMEN.		CHILDREN		Admis- sions.	Deaths.	Invalids.	Admis- sions.	Deaths.
	Admis- sions.	Constantly sick.	Deaths.	Invalids.	Admis- sions.	Deaths.	Admis- sions.	Deaths.					
DISEASES OF THE SKIN—contd.													
Urticaria	53	1'07	...	...	1	...	1	...	97	...	...	44	...
Veldt sore . . . . .	...	...	...	1	...	...	...	...	...	...	...	...	...
Wart	44	1'96	...	...	...	...	...	...	9	...	...	1	...
Wen	35	1'88	...	...	...	...	1	...	17	...	...	10	...
Whitlow	157	7'13	...	1	2	...	1	...	302	...	...	453	...
Zona	8	'16	...	...	...	...	...	...	66	...	...	59	...
Local diseases not defined . .	...	...	...	...	...	...	...	...	100	...	...	...	...
INJURIES (GENERAL AND LOCAL) :—													
ACCIDENTAL —													
Abrasions	749	25'96	...	...	1	...	4	...	2,836	...	...	101	...
Brush-burn	1	'02	...	...	...	...	...	...	...	...	...	...	...
Burns and scalds	91	4'72	4	1	1	...	9	...	288	2	...	232	...
Complete crush of chest . . .	...	...	...	...	...	...	...	...	...	...	...	...	1
Compression of the brain . .	1	'01	1	...	...	...	...	...	1	1	...	...	...
„ „ nerves . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
„ „ spinal cord	1	'01	...	...	...	...	...	...	...	...	...	...	...
Concussion of the brain . . .	34	2'38	2	1	...	...	3	...	46	2	...	6	...
„ „ spinal cord	5	'42	...	1	...	...	...	...	3	...	...	1	...
Contusions	1,240	54'02	1	3	6	...	6	...	2,168	...	3	776	...
Dislocations	91	7'81	1	5	...	...	...	...	74	...	4	22	2
Effects of cold . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
„ chemical irritants and corrosives . . . . .	...	...	...	...	...	...	...	...	5	...	...	...	...
„ irritants and corrosives . .	3	'07	...	...	...	...	2	...	...	...	...	24	...
Fall from horse . . . . .	...	...	...	...	...	...	...	...	1	2	...	...	...
Foreign bodies in tissues and organs	17	'64	1	1	...	...	...	...	24	...	1	22	...
Fractures	436	41'82	11	26	3	1	15	...	443	5	32	520	14
Fracture of the ribs with injury to pleura	1	...	1	...	...	...	...	...	...	...	...	...	...
Green-stick fracture . . . . .	...	...	...	...	...	...	1	...	...	...	...	...	...
Hæmatoma of the pinna . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Heat-stroke	157	8'47	36	3	1	1	5	2	14	1	...	48	19
Internal derangement of knee-joints	16	1'53	...	1	...	...	...	...	1	...	...	...	...
Injuries of alveoli and teeth . .	1	'04	...	...	...	...	...	...	1	...	...	...	...
„ (not defined) . . . . .	...	...	...	...	...	...	...	...	68	...	...	...	1
Laceration of membranes of brain .	...	...	...	...	...	...	...	...	...	...	...	...	1
Multiple injury . . . . .	...	...	...	...	...	...	...	...	...	...	1	30	...
Ruptures	8	'34	3	...	...	...	...	...	4	2	...	5	4
„ of bladder associated with fracture of pelvis	1	'34	...	1	...	...	...	...	...	...	...	...	...
Separation of epiphysis from bone .	1	'08	...	...	...	...	...	...	...	...	...	...	...
Shock . . . . .	...	...	1	...	...	...	...	...	...	...	...	3	2
Starvation . . . . .	...	...	...	...	...	...	...	...	...	...	...	2	...
Strains and sprains	1,365	57'98	...	2	6	...	3	...	1,506	...	...	232	...
Sub-arachnoid hæmorrhage . . .	...	...	...	...	...	...	...	...	...	...	...	1	1
Sub-conjunctival „ . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
Suffocation from overlaying . .	...	...	...	...	...	...	1	2	...	...	...	...	...

DISEASES.	EUROPEAN ARMY OF INDIA.								NATIVE ARMY OF INDIA.			JAIL POPULATION OF INDIA.	
	MEN.				WOMEN.		CHILDREN.		Admis- sions.	Deaths.	Invalids.	Admis- sions.	Daths.
	Admis- sions.	Constantly sick.	Deaths.	Invalids.	Admis- sions.	Deaths.	Admis- sions.	Deaths.					
INJURIES ACCIDENTAL—concl'd.													
Suffocation from plugging of air- passages with foreign substance .	...	...	1	...	...	...	1	1	...	...	...	...	...
Suffocation from submersion .	1	...	21	...	...	...	...	...	...	5	...	...	2
Sunstroke	46	1'39	1	1	...	...	...	...	22	1	...	42	13
„ and heat-stroke . .	...	...	...	...	...	...	...	...	21	...	...	...	...
Wounds	1,446	70'34	...	18	9	...	26	...	4,395	1	12	3,229	10
„ gunshot	38	5'35	3	15	...	...	...	...	136	6	51	20	1
INJURIES—HOMICIDAL—													
Gunshot wound . . . . .	...	...	...	...	...	...	...	...	1	3	...	...	3
Homicide (not defined) . . . .	...	...	...	...	...	...	...	...	...	...	...	...	2
Wound . . . . .	...	...	...	...	...	...	...	...	...	3	...	1	...
JUDICIAL—													
Hanging . . . . .	...	...	...	...	...	...	...	...	...	1	...	...	6
Punished . . . . .	...	...	...	...	...	...	...	...	...	...	...	37	...
SUICIDAL—													
Burns . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	1
Cut by train . . . . .	...	...	1	...	...	...	...	...	...	...	...	...	...
Drowning . . . . .	...	...	2	...	...	...	...	...	...	...	...	...	2
Effects of irritants and corrosives .	...	...	...	...	...	...	...	...	...	...	...	1	1
Hanging . . . . .	...	...	...	...	...	...	...	...	...	2	...	1	15
Suffocation from plugging of air- passages . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	1
Wound . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	1
„ cut-throat	3	...	4	...	...	...	...	...	...	...	...	...	2
„ gunshot	2	...	19	...	...	...	...	...	...	5	...	...	...
IN ACTION—													
Injuries (not defined) . . . .	...	...	...	...	...	...	...	...	24	...	...	...	...
Wounds	1	'09	...	...	...	...	...	...	...	...	...	...	...
„ gunshot . . . . .	...	...	...	...	...	...	...	...	131	37	...	...	...
NOT DEFINED—													
Cut-throat . . . . .	...	...	...	...	...	...	...	...	...	...	...	5	...
Hæmorrhaget . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	1
POISONS—													
Alcohol . . . . .	...	...	...	...	...	...	...	...	1	1	...	...	...
Arsenic	1	'03	...	...	...	...	...	...	5	...	...	2	2
Carbolic acid	1	...	1	...	...	...	1	...	...	...	...	...	...

TABLE LIII—continued.

DETAIL of DISEASES.

DISEASES.	EUROPEAN ARMY OF INDIA.								NATIVE ARMY OF INDIA.			JAIL POPULATION OF INDIA.	
	MEN.				WOMEN.		CHILDREN.		Admis- sions.	Deaths.	Invalids.	Admis- sions.	Deaths.
	Admis- sions.	Constantly sick.	Deaths	Invalids.	Admis- sions.	Deaths.	Admis- sions.	Deaths.					
POISONS—concl'd.													
Castor-oil seeds . . . . .	...	...	...	...	...	...	...	...	3	...	...	1	1
Chapati (hand bread)	1	'06	...	...	...	...	...	...	...	...	...	...	...
Chloroform vapour	2	...	2	...	...	...	...	...	...	...	...	...	...
Colocynth . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Croton leaves . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Croton oil . . . . .	...	...	...	...	...	...	...	...	1	1	...	...	...
Food, not defined	2	'04	2	...	...	...	...	...	...	...	...	...	...
Indian hemp . . . . .	...	...	...	...	...	...	...	...	4	...	1	...	...
Iodine	1	'03	...	...	...	...	...	...	...	...	...	...	...
Mercury	1	'04	...	...	...	...	...	...	2	1	...	2	1
Narcotic poisoning . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Opium	1	'02	...	...	...	...	...	...	4	3	...	...	1
Oxalic acid	1	'01	...	1	...	...	...	...	...	...	...	...	...
Poison (not defined)	1	'02	...	...	...	...	...	...	1	...	...	...	...
Potash . . . . .	...	...	...	...	...	...	...	...	1	1	...	...	...
Pounded glass . . . . .	...	...	...	...	...	...	...	...	...	...	...	1	...
Ptomaines	11	'32	1	...	...	...	...	...	1	1	...	2	1
Quinine	1	'03	...	...	...	...	...	...	...	...	...	...	...
Thorn apple . . . . .	...	...	...	...	...	...	1	...	1	...	...	3	...
POISONED WOUNDS—													
Poisoned wound by cat . . . .	...	'04	...	...	...	...	...	...	...	...	...	...	...
„ „ centipedes . . . . .	...	...	...	...	...	...	...	...	1	...	...	42	...
„ „ dog	47	7'95	...	...	2	...	2	...	3	...	...	2	...
„ „ fish . . . . .	...	...	...	...	...	...	...	...	...	...	...	3	...
„ „ horse	3	'34	...	...	...	...	...	...	...	...	...	...	...
„ „ leech . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
„ „ monkey . . . . .	...	...	...	...	...	...	...	...	...	...	...	11	...
Poisoned wound (not defined) .	2	'04	...	...	...	...	...	...	...	...	...	...	...
„ by panther . . . . .	...	...	...	...	...	...	...	...	1	1	...	...	...
„ „ scorpions . . . . .	...	...	...	...	...	...	...	...	1	...	...	...	...
„ „ snakes	2	'03	2	...	...	...	...	...	12	4	...	31	2
„ „ stinging insects	3	'05	...	...	...	...	...	...	19	...	...	1	...
„ „ wild boar . . . . .	...	...	...	...	...	...	...	...	2	1	...	...	...
No appreciable disease	249	11'25	...	...	161	...	48	...	14	...	...	19	...
Not yet diagnosed . . . . .	...	...	...	...	...	...	...	...	12	...	...	27	...
Cause unknown . . . . .	...	...	...	...	...	...	...	...	...	5	...	...	...
Deaths while on leave, etc. . .	...	...	...	...	...	...	...	...	...	339	...	...	...
TOTAL	57,301	3139'08	623	* 1,078	2,660	50	2,619	292	85,637	1,280	842	85,691	2 824

{ Northern Army . 49=16'06
* { Southern „ . 489=16'17
{ India „ . 1,078=15'64

TROOPS ON FIELD SERVICE.
DETAIL OF DISEASES.

DISEASES.	EUROPEAN TROOPS.				NATIVE TROOPS.			
	BAZAR VALLEY FIELD FORCE.		MOHMAND FIELD FORCE.		BAZAR VALLEY FIELD FORCE.		MOHMAND FIELD FORCE.	
	Average annual strength . . . 97		Average annual strength . . . 314		Average annual strength . . . 333		Average annual strength . . . 1,185	
	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.
GENERAL DISEASES.								
INFECTIVE DISEASES—								
Cholera . . . . .	...	...	50	41	...	...	12	5
Dysentery . . . . .	...	...	6	...	5	...	64	...
Enteric fever . . . . .	...	...	3	2	...	...	...	...
Fever, not defined . . . . .	...	...	8	...	...	...	...	...
Gonorrhœa . . . . .	...	...	10	...	...	...	1	...
Influenza . . . . .	...	...	1	...	...	...	1	...
Malaria	10	...	51	...	7	...	109	1
Measles . . . . .	...	...	...	...	...	...	1	...
Mumps . . . . .	...	...	...	...	...	...	2	...
Pneumonia	2	...	1	...	11	...	17	1
Pyrexia of uncertain origin . . . . .	...	...	10	...	...	...	...	...
Rheumatic fever	1	...	...	...	1	...	5	...
Septicæmia . . . . .	...	...	1	1	...	...	...	...
Small-pox . . . . .	...	...	...	...	1	...	...	...
Syphilis . . . . .	...	...	2	...	1	...	1	...
GENERAL DISEASES NOT CLASSIFIED :—								
Debility . . . . .	...	...	3	...	...	...	...	...
Diseases, not specified . . . . .	...	...	35	...	...	...	8	1
LOCAL DISEASES.								
NERVOUS DISEASES—								
Nervous disease, not specified . . . . .	...	...	...	...	...	...	1	...
EYE DISEASES—								
Conjunctivitis . . . . .	...	...	3	...	...	...	15	..
Eye diseases, not specified	1	...	...	...	...	...	2	...
DISEASES OF THE CIRCULATORY SYSTEM—								
Disordered action of the heart . . . . .	...	...	3	...	...	...	...	...
Varicose veins . . . . .	...	...	2	...	...	...	...	...
Circulatory diseases, not specified . . . . .	...	...	2	...	...	...	...	...
DISEASES OF THE RESPIRATORY SYSTEM—								
Bronchitis	1	...	1	...	2	...	4	...
Pleurisy . . . . .	...	...	2	...	...	...	1	...
Respiratory diseases, not specified . . . . .	...	...	...	...	...	...	3	...
DISEASES OF THE DIGESTIVE SYSTEM—								
Colic	2	...	3	...	...	...	...	...
Diarrhœa	7	...	41	...	...	...	29	...
Digestive diseases, not specified . . . . .	...	...	12	...	2	...	18	...
Enteritis . . . . .	...	...	2	...	...	...	...	...
Hernia	1	...	1	...	...	...	...	...

TABLE LIII—concluded.

TROOPS ON FIELD SERVICE.
DETAIL OF DISEASES.

DISEASES.	EUROPEAN TROOPS.				NATIVE TROOPS.			
	BAZAR VALLEY FIELD FORCE.		MOHMAND FIELD FORCE.		BAZAR VALLEY FIELD FORCE.		MOHMAND FIELD FORCE.	
	Average annual strength . . . 97		Average annual strength . . . 314		Average annual strength . . . 333		Average annual strength . . . 1,185	
	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.
DISEASES OF THE DIGESTIVE SYSTEM —concl.								
Inflammation of the dental periosteum . . .	2	...	...	...	...	...	...	...
„ „ intestines . . .	...	...	1	...	...	...	...	...
Jaundice . . .	...	...	1	...	...	...	...	...
Piles . . .	1	...	...	...	...	...	...	...
Sore throat . . .	1	...	...	...	...	...	1	...
Tonsillitis . . .	...	...	8	...	...	...	...	...
DISEASES OF THE LYMPHATIC SYSTEM—								
Inflammation of lymphatic glands . . .	...	...	2	...	...	...	...	...
Splenitis . . .	...	...	1	...	...	...	...	...
DISEASES OF THE URINARY SYSTEM—								
Acute nephritis . . .	...	...	2	...	...	...	...	...
DISEASES OF THE GENERATIVE SYSTEM—								
Soft chancre . . .	...	...	...	...	1	...	1	...
Stricture of urethra . . .	...	...	1	...	...	...	...	...
DISEASES OF THE ORGANS OF LOCOMOTION—								
Hammer toe . . .	...	...	1	...	...	...	...	...
Synovitis . . .	...	...	6	...	...	...	...	...
DISEASES OF THE CONNECTIVE TISSUE—								
Inflammation of the connective tissue . . .	1	...	...	...	...	...	...	...
DISEASES OF THE SKIN—								
Eczema . . .	...	...	1	...	...	...	...	...
Impetigo . . .	1	...	...	...	...	...	...	...
Onychia . . .	...	...	2	...	...	...	...	...
Psoriasis . . .	...	...	1	...	...	...	...	...
Local diseases, not specified . . .	2	...	20	...	4	...	96	...
INJURIES—GENERAL AND LOCAL—								
ACCIDENTAL—								
Abrasion . . .	...	...	5	...	...	...	...	...
Contusion . . .	1	...	7	...	...	...	...	...
Injuries, not specified . . .	3	...	32	...	12	...	56	...
Sprains and strains . . .	2	...	...	...	...	...	...	...
Sunstroke and heatstroke . . .	...	...	45	...	...	...	21	...
Wounds . . .	1	...	1	...	...	...	...	...
„ gunshot . . .	...	...	...	1	...	...	...	3
INJURIES IN ACTION—								
Injuries, not specified . . .	...	...	...	...	17	...	7	...
Wounds, gunshot . . .	6	1	28	4	...	2	131	31
Not yet diagnosed . . .	...	...	94	...	...	...	...	...
„ „ „ venereal sore . . .	...	...	3	...	...	...	...	...
TOTAL . . .	45	1	524	50	64	2	607	42

ANNUAL REPORT
OF THE
SANITARY COMMISSIONER WITH THE
GOVERNMENT OF INDIA,

FOR
1908,

WITH
APPENDICES AND RETURNS OF SICKNESS AND MORTALITY AMONG
EUROPEAN TROOPS, NATIVE TROOPS, AND PRISONERS
IN INDIA, FOR THE YEAR.



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